

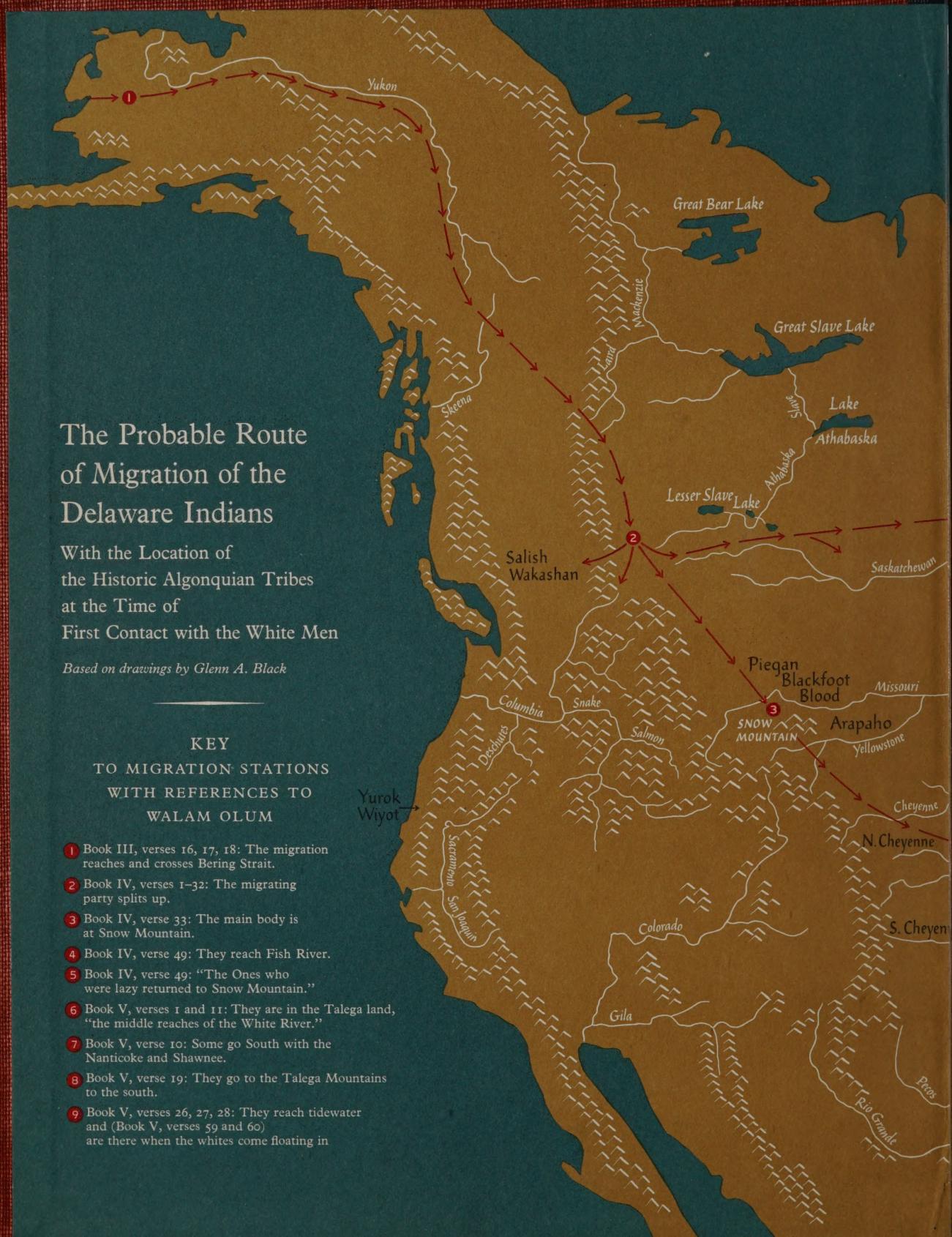
The Probable Route of Migration of the Delaware Indians

With the Location of
the Historic Algonquian Tribes
at the Time of
First Contact with the White Men

Based on drawings by Glenn A. Black

KEY TO MIGRATION STATIONS WITH REFERENCES TO WALAM OLUM

- 1 Book III, verses 16, 17, 18: The migration reaches and crosses Bering Strait.
- 2 Book IV, verses 1-32: The migrating party splits up.
- 3 Book IV, verse 33: The main body is at Snow Mountain.
- 4 Book IV, verse 49: They reach Fish River.
- 5 Book IV, verse 49: "The Ones who were lazy returned to Snow Mountain."
- 6 Book V, verses 1 and 11: They are in the Talega land, "the middle reaches of the White River."
- 7 Book V, verse 10: Some go South with the Nanticoke and Shawnee.
- 8 Book V, verse 19: They go to the Talega Mountains to the south.
- 9 Book V, verses 26, 27, 28: They reach tidewater and (Book V, verses 59 and 60) are there when the whites come floating in



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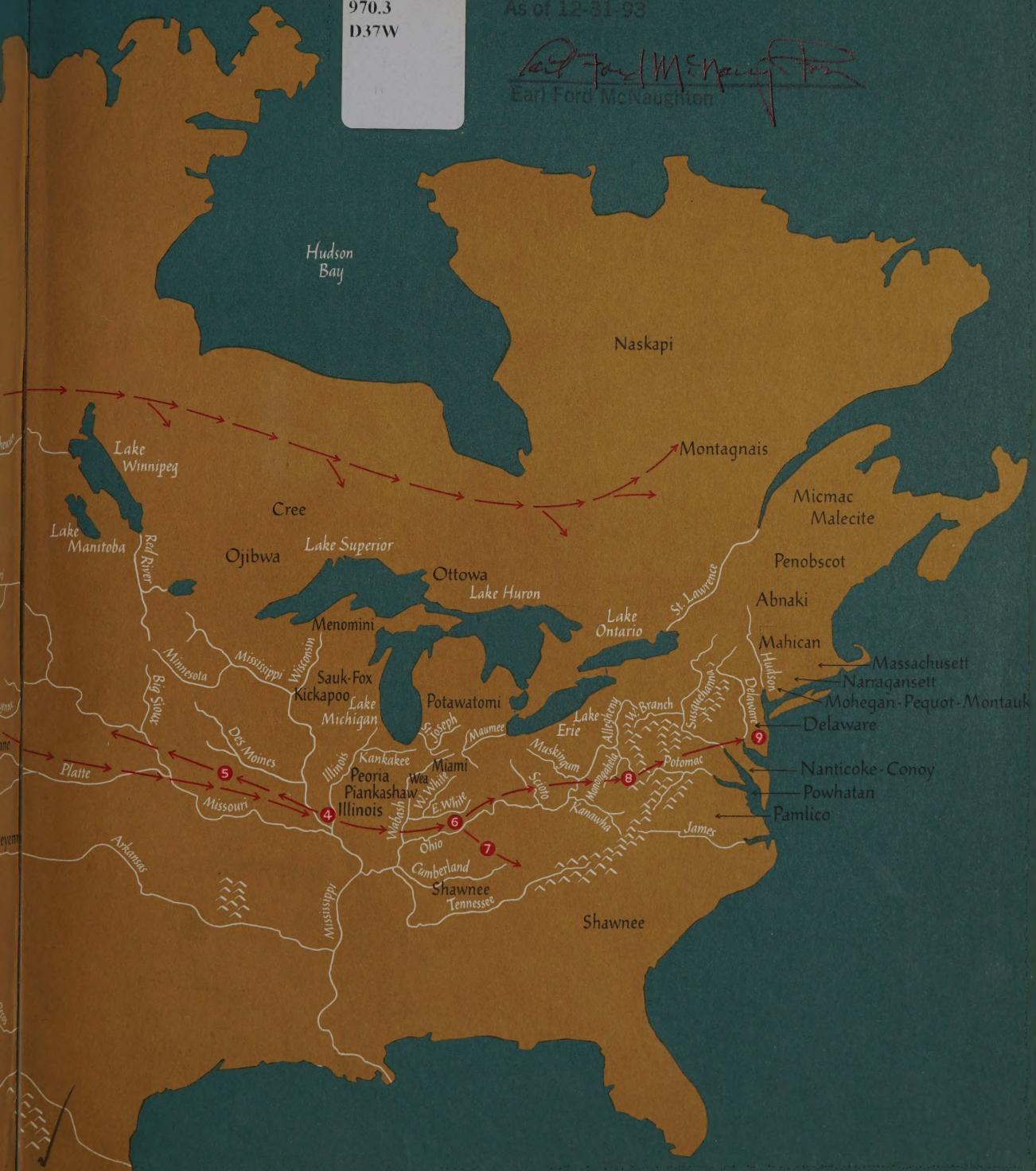
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WALAM OLUM

*The Migration Legend of the Lenni Lenape
or Delaware Indians*



Constantine S. Rafinesque

1783-1840

From miniature at Transylvania College
Lexington, Kentucky

WALAM OLUM

or Red Score

THE MIGRATION LEGEND OF THE LENNI LENAPE OR DELAWARE INDIANS

A NEW TRANSLATION,
INTERPRETED BY LINGUISTIC, HISTORICAL,
ARCHAEOLOGICAL, ETHNOLOGICAL,
AND PHYSICAL ANTHROPOLOGICAL STUDIES



INDIANAPOLIS
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1954

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We are indebted to Transylvania University for permission to reproduce the miniature of Rafinesque as the frontispiece of this volume.

It has been a stimulating experience for those of us who have participated in this interdisciplinary concentration on a unique problem. To the scholars, librarians, and friends, too many to enumerate here, who devoted so many hours to our problems, we can only say that we hope this volume is to them a justification of their efforts in our behalf.

It is appropriate that the Indiana Historical Society should publish the Delaware tribal chronicle, for it was in Indiana that the tribe made its last independent stand against the encroaching white man, and it was probably on the White River that the *Walam Olum* was transmitted to "Dr. Ward." We wish to express our thanks to the Society for the interest it has manifested in our project.

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INTRODUCTION

THE Walam Olum, tribal chronicle of the Lenni Lenape or Delaware Indians, has been known to students of Indian history for over a century. Yet the existence of such a document is learned by the layman with astonishment, and it seems advisable to introduce the subject to the general reader.

The Walam Olum proper is divided into five books or songs, each made up of a varying number of verses. In total length it runs to 183 verses. The songs relate the tribal story from the Creation to the coming of the White man to North America. The main themes are the migration from Asia to Alaska and south and east across the North American continent, and the chronological presentation of the chiefs by which time was measured in the epic.

The title words have been interpreted as meaning "red score" or "painted record." The story was kept from generation to generation by pictorial symbols painted on sticks and kept in order by bundles. Each symbol, or pictograph, represented a verse of the chronicle. None of these sticks survive today. By fortuitous circumstances copies of the pictographs as well as a Delaware text to accompany them do exist. The manuscript of these, in the hand of the botanist and natural historian, Constantine S. Rafinesque, is in the Museum of the University of Pennsylvania. It was written, according to Rafinesque's own note, in 1833, the copy covering two notebooks of forty pages each, 6½ by 7¾ inches in size, with paper covers.

Rafinesque taught botany and natural history at Transylvania University in Lexington, Kentucky, from 1819 to 1825. He explains, all too briefly, that he obtained "some of the original Wallam-Olum" through "the late Dr. Ward of Indiana" in 1820. Two years later from another and unknown individual he secured "the songs annexed thereto in the original language." After Rafinesque's removal to Philadelphia in 1825, he undertook to learn the Delaware language and made a translation of the songs into English in 1833. Sometime before this date he obtained twenty additional verses covering the period of Delaware history roughly from 1600 to 1800—"merely a fragment," Rafinesque wrote, "translated by John Burns." He failed to elaborate on Dr. Ward and offers no clue to the identification of John Burns

or the person from whom he obtained the Delaware text. In 1836 he published his translation in *The American Nations*, accompanied by linguistic and historical notes. He did not print the pictographs or the Delaware text, though he did include a few of the Delaware words with their meanings.

Two other persons up to the present time have published translations. The first was Ephraim George Squier, best known for his *Ancient Monuments of the Mississippi Valley*, which he prepared in collaboration with Edwin Hamilton Davis. In a paper entitled "Historical and Mythological Traditions of the Algonquians," read before the New-York Historical Society on June 6, 1848, Squier included a "Translation of the Walum-Olum, or Bark Records of the Lenni Lenape," with notes and comments. When his paper was published, the pictographs and Delaware text for the first two songs were reproduced as illustrations. The "fragment" covering the historical period was also included. Squier's translation seems smoother, more readable, than Rafinesque's, but does not impart any new information.

The second person to publish a translation was the ethnologist, Daniel G. Brinton. His appears in his volume *The Lenâpé and Their Legends* (1885). Brinton redrew all the pictographs and included them, the Delaware text, and his own translation of all the verses. He omitted the historical appendix and made no reference to it whatsoever.

Here in Part I of this volume are published for the first time all the pictographs as Rafinesque copied them, the Delaware words for the pictographs, their English meaning as translated by Rafinesque, and the historical appendix. In addition a new and more accurate translation is offered, with linguistic, pictographic, ethnological, and historical notes.

Part II consists of five essays analyzing the Walam Olum. The chronicle contains within itself much matter for study and speculation by the historian and anthropologist. Here is probably the most important and the most interesting recorded tradition derived from any American aboriginal source north of Mexico. After careful study Brinton accepted it as a "genuine native production." Some twenty years ago an Indiana Historical Society committee resolved to undertake a re-examination of it, and this book represents the intermittent work of a number of persons over those years.

In 1931 Glenn A. Black, archaeological field director for the Indiana Historical Society, called the attention of the committee to Professor Edward Sapir's work entitled *Time Perspective in Aboriginal American Culture, a Study of Method* (1916). Sapir pointed out that there are two types of evidence which may be used in attempting to set the data of early American ethnology into proper chronological relationships: direct and inferential. Direct evidence includes that yielded by historical documents, native testimony, and stratified archaeological testimony. The meaning and contents of these materials is clear. Inferential evidence includes that yielded by physical anthropology, the descriptive data of culture (ethnology and archaeology), and linguistics.

"It is customary," says Sapir, "to insist on the mutual independence of racial, cultural, and linguistic factors. This caution of method must, however, not be understood to mean that conclusions of direct value for the history of culture can not be derived from the data of physical anthropology and linguistics. In actual practice the units of distribution of these three sciences, while never coinciding throughout, do nevertheless show significant lines of accord. . . . That differences in culture ever neatly correspond to differences of race and language can not be maintained, but I wish to point out that the numerous homologies are of at least as great historical importance as the discordances."

This essay suggested a method to the committee for studying the famous Lenape record. The belief that the tradition of the "Red Score" was at least in part living history fixed itself with glowing appeal on the members, and Sapir seemed to offer a promising entrance into an examination of its historical accuracy.

A division of labor among the group was made. To Paul Weer went the historical task of finding out everything that he could on the subject of Rafinesque, "Dr. Ward," and the Walam Olum. This he has done and his findings are given in Part II of this volume.

Professor Sapir was approached by the Indiana Historical Society with a proposal to establish a fellowship at Yale for the study of the linguistic problems involved in the re-examination of the Walam Olum. The proposal was accepted, and in 1933 C. F. Voegelin received the fellowship and began his work. This proved to be a happy appointment in that it eventually resulted in a new and brilliant trans-

lation of the songs of the Walam Olum that smoothed out many of the obscure passages in the translation by Brinton made many years before the present deeper knowledge of the Delaware dialects. Dr. Voegelin, now head of the Department of Anthropology in Indiana University, and Joe E. Pierce, a graduate student in that University, have contributed an essay for this volume entitled, "Validity of Translations of the Walam Olum."

From his study of present-day Delaware, as spoken by the Delaware now living in Oklahoma and on the Six Nation Reserve in Ontario, Canada, and the Delaware of the Walam Olum, Dr. Voegelin concluded that the language of the Walam Olum represents a conservative, older dialect which happens to coincide in a large measure with the Canadian dialects and differs from Oklahoma Delaware dialect or dialects. But he hastens to add that this does not mean that those who told the story of the Walam Olum were ancestors of the Canadian Delaware rather than of the Oklahoma Delaware. The present-day Oklahoma Delaware dialect, he believes, is a "leveled" dialect, that is, fairly homogeneous and probably of no great historical depth. In his thorough study of the language problems of the Walam Olum Dr. Voegelin has compared every word, indeed every morpheme, of the songs with numerous morphemes of present-day Delaware. A concordance derived from this study is being prepared for permanent archival record to be placed in the Franz Boas Collection in the Library of the American Philosophical Society.

Erminie Wheeler Voegelin, of Indiana University, studied the ethnological aspects of the chronicle and has contributed a running commentary on the songs, verse by verse, and an essay, "Parallels to the Delaware Walam Olum."

To Georg K. Neumann, of Indiana University, was assigned the physical anthropological implications, and Glenn A. Black has been the leader of the archaeological investigations. About 1945 it became evident that to verify the suspected passage of the Lenape through the Midwest toward the East it would be necessary to know the culture of the Delaware as revealed by archaeological inquiry into sites in the East thought to be Delaware. With the kind assistance of Frank G. Speck, Dorothy J. Cross, William A. Ritchie, and James B. Griffin, arrangements were made to explore such sites in Pennsylvania, New Jersey, and New York. These well-known scientists supervised the work of Edmund S. Carpenter, John Witthoft,

Catherine McCann, and Richard S. MacNeish for a period running from June, 1946, to June, 1950. Conclusions drawn from their work and his own research have been summarized herein by Dr. Black.

Eli Lilly chose to decipher the meaning of the ideographs, to trace the route of migration described in the chronicle, and to speculate upon the dates of the events mentioned. Apparently none of the previous translators worked with the pictographs. Rafinesque said that the contents were quite unintelligible to him until he obtained the Delaware text and worked out a translation of it with the aid of a Delaware dictionary. Mr. Lilly has studied the meaning of the ideographs and made comparisons of them with those used in the pictorial writings of other peoples. About half of the elements of the ideographs were found in the literature on pictorial writing employed by various Algonquian peoples and their meanings verified. The significance of the other half was determined by internal evidence and by the repetition of meanings and glyphs in two or more verses. A very few ideographs were unique, occurring only once and hence not accurately definable.

As might be expected, the meanings of some of the pictographs are obvious, much like those of many primitive peoples, Chinese, Egyptians, Cretans, and Babylonians. Examples of these are the representations of the sun, moon, mountains, and the celestial arch. In several cases, however, it is rather astonishing to find symbols representing more or less abstract ideas such as "chief," "plural," "peril," "peace," and "prosperity," closely resembling those of the archaic Chinese. (See *Pictograph Concordance*, 44, 1, 37, 28, 53.) These likenesses might lead one to suspect the *Walam Olum* to be a forgery made by someone familiar with ancient Chinese characters, were it not for the overwhelming evidence attesting to its authenticity brought together years ago by Brinton and the subsequent accumulation of supporting evidence.

The discovery by Mr. Lilly of one of the pictographs in Brinton's book being upside down led to a careful comparison of his figures with those in Rafinesque's manuscript from which they were copied. Fifty-eight differences were discovered, due, probably, to the fact that the pictographs were redrawn and to the possible carelessness of the printer and copyreader during the printing process. This natu-

rally brings up the question of the possibility of mistakes having been made by Rafinesque in copying the originals.

The result of the twenty-year study of the Walam Olum is given in the following pages. To use an exalted comparison, suggested by Mr. Lilly, the several co-operating authors of this book have all the confidence in the historical value of the Walam Olum that Schliemann had in the accuracy of the Homeric epics. As Schliemann misjudged the proper stratum for Troy and identified wrongly the graves in Mycenae, so these scholars may have mistaken the movements of a large part of the Algonquian stock for the invasion of the Lenni Lenape, or made some other near miss. The authors believe wholeheartedly that some day discovery of additional facts will further vindicate their faith in the genuineness and value of the Walam Olum. They are satisfied to report their findings to date so that future inquiry may proceed from this point.

PART I

WALAM OLUM

Book I



THE PROPERTY OF
C. L. Rafinesque
Walamatum & Co.,
1833
Value \$20 - Cost \$5 -

Engraved by L. Johnson, Philada.

W'allamolum

First Part of the printed engraved
traditions of the Lumilinapi &c
Containing

the 3 Original traditional poems

1. On the Creation & Onlogony 24 Verses

2. On the Deluge &c. 16

3. On the passage to America 20

Signs & Verses 60

with the original glyphs, a sign
for each verse of the poems or songs
translated word for word.

by C. L. Raffinesque

1833.

This gift & the wooden original was purchased
in 1822 in Kentucky but was inexplicable
till a deep study of the Linapi enabled me
to translate them, with explanations. etc.

1. Sayewitalli wemiguma wokgetaki
 Sayewi - At first
 talli - there
 wemi - all
 guma Sea water
 wokget - on the top
 ati Land.



1st glyph

I, 1. "There at the edge of all the water where the land ends . . ."

[Sayewi (šowii 'edge'), talli (táli 'there'), wemiguma (wéemi 'all' and -kkam 'body of water'), wokgetaki (wíikweek hákki 'where the land ends' or xkwóci hákkink 'on top of the land').]

Pictograph: The two concentric curved lines represent the celestial arch,^{9*} the two horizontal lines the earth or land.⁴¹ Open ends may mean the sea.⁵⁸

Comment: The concept of a large body of water at the land's end is frequently found in Eastern Woodlands mythology. In a Shawnee tale several men travel west until they come to "a lot of water at the end of the earth" ("the edge of the ocean" or "the end of the earth") which they must cross to reach the abode of the Creator.

*The superior numbers refer to numbered sections in the Concordance, *post*, p. 226.

2. Hackung-kwelik owanaku wakytali'
Kitanitowit-essop.

Hackung - above
Kwelik much water
Owanaku fog (as
wak and
yutali - there
Kitanitowit - God Creator
Essop he was



I, 2. "... the fog over the earth was plentiful, and this was where the Great Spirit stayed."

[Hackung (hákkink 'on the earth' or xkwéci 'on top'), kwelik (xahéeluuk 'they are many' or xahéeli 'much'), owanaku (aón 'fog' and iká 'thereabouts'), wak (óok 'and'), yutali (yutáli 'just there'), Kitanitowit-essop (kiittananhtúuwiit 'one who is the Great Spirit' and ikaahpú 'he stays there'; but cp. Ojibwa taši 'there', api 'he is at home').]

Pictograph: The outline of the head with rays is the emblem of the Great Spirit.³⁰ The parallelogram with the diagonal lines denotes the four quarters of the earth.²⁷ A body of water is indicated by the semicircle³⁵ below the long ground line.³¹

Comment: Fog preceding the creation of land by the Great Spirit is a detail which the Delaware share with the Ojibwa. The latter relate that a great fog hung over the lakes; in three days the fog lifted revealing the island of Michilimackinac, the creation of the Great Spirit. Explicit or implicit references to the Creator's existence in a void above the earth during primeval times or at the present time abound in Eastern Woodlands mythology. Among the modern Delaware the Creator is represented as occupying the topmost of twelve "layers of light" above the world. The oldest known name for the Great Spirit among the Delaware is that given above (*kiittananhtúuwiit*).

3. Sayewis hallemiwiis nolemiwi elemamik
 Kitanitowit essop
 Saye wis first being
 hallemi wiis eternal being
 nolemiwi invisible
 elemamik everywhere
 Kitanitowit essop God Creator beings



I, 3. "It began to be invisible everywhere, even at the place where the Great Spirit stayed."

[Sayewis (šowíi 'edge'), hallemiwiis (áləmi 'to begin'; but Zeisberger gives 'eternally'), nolemiwi (ala 'to be unable' and neew- 'to see'), elemamik (eels- máakamiikw 'everywhere'), Kitanitowit-essop (kiittananhtíuwit 'one who is the Great Spirit' and ahpú 'he stays').]

Pictograph: Concentric circles or a circle with a dot in the center means divine or hallowed.²⁰ The four points indicate the four quarters of the earth.²⁷

Comment: The "mist of invisibility" motif is apparently restricted in the Eastern Woodlands to the Delaware and Ojibwa. Outside the area it occurs in Pawnee mythology, and in that of several western Plateau tribes. The modern Delaware, like the Shawnee, conceive of their Great Spirit as existing unseen and apart from all other beings on the topmost level of heaven, until such time as the world shall end when (according to Delaware belief) all persons living and dead will go to that heavenly level.

4. Sohalawak kwelik hakik owak awasa
awasagamak

Sohalawak He covers them



Kwelik much water

Hakik much land

4

Owak much air or clouds

Awasagamak much heaven

I, 4. "He created much land here as well as land on the other side of the water."

[Sohalawak (*kwiišeelántamən* 'he creates it'), kwelik (*xahéeli* 'much'), hakik (*hákki* 'land'), owak (*óok* 'and'), awasagamak (*oosaa-* 'other side' and *-aaka-miikka* 'earth, land').]

Pictograph: The parallelogram with the diagonal lines is the sign for the four quarters of the earth.²⁷ Rolling land is denoted by the segments of circles at the top of the glyph and in the lower quadrant.⁴²

The bowl-shaped figure in the quadrant to the left represents a body of water,⁷⁵ and the idea of a river is conveyed by the wavy line in the triangle to the right.⁵⁵

Comment: This is consonant with modern Delaware belief that the Great Spirit created the earth and the water.

5. *Sohalawak Gishuk Nipahum alankwak*
Sohalawak because of them
Gishuk Sun
Nipahum Moon
Alankwak Stars.



I, 5. "He created the sun and the stars of night. . ."

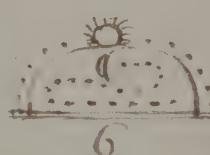
[Sohalawak (*kwiišeeléntamən* 'he creates it'), gishuk (*kíišuux* 'sun'), nipahum (cp. Ojibwa *niipaatipik* 'night'), alankwak (*alánkok* 'stars').]

Pictograph: Symbols for the sun,⁶⁸ moon,⁴⁷ stars,⁶⁷ celestial arch,⁹ and the ground line,³¹ are easily recognized in this ideograph.

Comment: The sun and the stars are referred to by the present-day Delaware as "elder brother" and "grandfathers," and are said to have been created by the Great Spirit as subordinate deities. The Delaware revere the stars highly and frequently address them or refer to them during their annual religious ceremony.

6. Wéemi sohalawak yulik yush aan.

Wéemi ... all
sohalawak he causes them
yulik these
yush well
aan to move



I, 6. "... all these he created so that they might move."

[Wéemi-sohalawak (*wéemi* 'all' and *kwiišeelšntamən* 'he creates it'), yulikyuchaan (*yúulii* or *yúuki* 'these' and *citáan* 'to go').]

Pictograph: The symbols for the sun,⁶⁸ moon,⁴⁷ celestial arch,⁹ and land,⁴¹ are here exhibited. Perhaps the trailing curve of star⁶⁷ dots within the arch is intended to indicate motion. It is a question as to whether there are eleven or twelve dots above the arch; if the latter number, they may stand for the months of the year. (Schoolcraft, *Information Respecting . . . the Indian Tribes*, I, 115).*

Comment: The Delaware and the Shawnee, like other Eastern Woodlands tribes, believe that the sun and stars are animate. The movements of the stars and their position in the sky determine, for the Delaware, when medicinal herbs shall be gathered, when basketry material shall be collected, and other activities undertaken.

*For full citations see pictograph bibliography, *post*, p. 237.

7. *Wich-owagan kshakan moshakwat kwelik
 Kshiphelep.*
 Wich With
 Owagan - Action
 Kshakan - it blows hard
 moshakwat - it clears up
 kwelik - depurates
 Kshiphelep - it ran off.



I, 7. "Accompanying good deeds the wind blew, the sky cleared, and water rippled in many places."

[Wich-owagan (*wiicci*- 'with' and *xuwáakkan* 'good deeds'), kshakan (*kšáxan* 'it blows'), moshakwat (*muušhákot* 'the sky is clearing up'), kwelik (*xahéeli* 'much'), kshiphelep (*kšoppéhelee* 'water runs').]

Pictograph: The small circle at the top of the figure probably denotes the head of a person, and the short upcurving lines, upraised arms. Such a gesture in sign language means "clear."¹¹ The celestial arch⁹ rises from a ground line,³¹ and the two short curved lines inside the arch are wind glyphs.³¹

Comment: The beneficence of the Great Spirit is herein emphasized; the modern Delaware stress this same attribute of the Great Spirit in their annual religious ceremony.

8 Opeleken mani menak delsin epit
 Opeleken it looks bright
 Mani made
 menak islands
 delsin & another
 epit being there

8

I, 8. "It looked bright, for he made islands, and having done so, he remained."

Opeleken (*ooppiaanáakot* 'it looks white'), mani-menak (*moniittun* 'he makes it' and *manáattay* 'island'; cp. Ojibwa *maniss* 'island'), delsin-epit (*telsiin-* 'to do so' and *éeppiit* 'where he stays').]

Pictograph: In this pictograph the open-ended double horizontal lines indicate the sea.⁵⁸ The small triangle stands for an island,⁵⁹ and the curve is, of course, the celestial arch.⁶⁰ Small triangles similar to this one have four meanings in the Walam Olum exemplified by numerous repetitions: (1) an island; (2) friendly, pleasant, and peaceful; (3) a mountain; and (4) hidden. The differences in meaning are sometimes shown by size, but the text has to be depended upon largely to determine the proper meaning. There may be a phonetic connection between these four Delaware words since they have a common denominator of nasal and plosive sounds.

Comment: Among practically all Eastern Woodlands people who credit the Great Spirit with the creation of the universe, the land created is referred to as an island or islands. The Shawnee, for example, say the Great Spirit made the island which the Indians were later set down upon, but that there was also another island to the south which was inhabited by white men.

9. Lappinup Kitanitowit manito manitoak
 Lappinup Agni-ka-her
 Kitanitowit God or spirit
 Manito - he made 
 manitoak the Spirit or makers

I, 9. "Then again, the one who is the Great Spirit, a manito, created manitos. . ."

[Lappinup (*lápı* 'again'), Kitanitowit (*kiittananhtúuwíit* 'one who is the Great Spirit'), manito (*manštú* 'manito'), manitoak (*manštúuwak* 'manitos').]

Pictograph: The special flourishes on the ends of the celestial arch⁹ signify spiritual power⁶⁶ according to some authorities. The dotted circles reveal divinity,²⁰ in this instance symbolizing the newly created closely related⁵ manitos. A ground line forms a base for the figure.³¹

Comment: The present-day Delaware in common with other Eastern Woodlands groups believe that it was the Great Spirit or supreme manito who created all those lesser deities which are recognized and which are referred to as manitos also.

10. Owiniwak angelatawiwak chichankwak
 Persons ^{Wicániwak} ~~all~~ ^{beings} also
 Angelatawiwak ^{Angels} also
 Chichankwak ^{Souls} also
 Wemiwak ^{all} also.

I, 10. "... and persons who die, and souls for all of them."

[Owiniwak (*awéeniiik* 'persons'), angelatawiwak (*ánkəla* 'he dies'), chichankwak (*ciicánkok* 'mirrors, souls'), wemiwak (*wéemi* 'all').]

Pictograph: Judging from the text, the small winged circles represent souls, the dotted one being divine.²⁰ The large triangle seems to indicate that everything within it is hidden,²¹ or invisible as a result of supernatural power. The circle at the top of the figure is the sun.²²

Comment: Modern Delaware belief parallels that expressed above, and among the Shawnee the Great Spirit created mortals in a region above the earth, and then sent them down to inhabit the earth-island. The term for soul above is the one now used by the Christian Delaware; the unconverted Delaware use a different word. This does not necessarily mean that the former is an innovation. In a parallel case the Shawnee use their old word for buffalo for modern cattle, and a newly formed compound for the old buffalo. The use of "mirror" for soul is pan-Algonquian, which argues for considerable antiquity.

11. Wtenk manito, Jinwis lennowak mukom.
 Wtenk after
 manito he made
 Jinwis Man-being
 lennowak men
 mukom ancestor



I, 11. "Thereafter he was a manito to young men, full grown men, and their grandfathers."

[Wtenk (*wténk* 'after, behind'), manito (*manóttu* 'manito'), jinwis (*skinniúwak* 'young men'), lennowak (*lénwak* 'men'), mukom (*moxíúmsa* 'his grandfathers').]

Pictograph: This sketch of the human figure³⁴ evidently is meant to suggest the first male ancestors of the Lenape. The circle over the head implies a burden, in this instance meaning loaded with spiritual importance.⁶⁵

The object upon the ground line³¹ between the legs of the figure is the glyph for land or the earth.⁴² A petroglyph much like this figure has been reported in Roberts County, South Dakota. Over, "Indian Picture Writing in South Dakota," p. 42.

Comment: The use of status or age terms for males, and also for females, is widespread among American Indian groups.

12. Milap Netami gaho owini gaho.
 Milap he gave her
 Netami the first
 Gaho Mother
 Owini first beings
 Gaho mother



I, 12. "He gave the first mother, mother of persons."

[Milap (*mwíilaan* 'he gives her'), netami (*hitami* 'first'; cp. Ojibwa *nittam* 'first, at first'), gaho (*kohéesa* 'his mother'), owini (*awéen* 'person'), gaho (*kohéesa* 'his mother').]

Pictograph: Here is depicted the first female^{25,34} ancestor of the Lenape. The head circle repeats the idea of spiritual importance,⁶⁵ and the sex is shown both by the skirt and dots.

Comment: This reference to the creation of the first mortal woman, following the creation of man, parallels a reference in the Shawnee origin myth. The Delaware, like the Shawnee and other Central Algonquian groups, accord women equal consideration with men in almost all matters, and maintain a balance of functions for both sexes in religious ceremonies as well as in daily life.

1. Namesik milap, Tulpewik milap, awesik
 milap, Cholensak milap
 Namesik fisher
 milap He gave him
 tulpewik - turtle
 awesik - Beasts
 cholensak - Birds

I, 13. "He gave fish, turtles, animals, birds."

[Namesik (*naméesak* 'fish'), milap (*muíilaan* 'he gives him'), tulpewik (cp. -*túulpi* in *piusalaptúulpi* 'soft shell turtle'), milap (*muíilaan* 'he gives him'), awesik (*aesásak* 'animals'; cp. Ojibwa *aweessiinyak* 'animals'), milap (*muíilaan* 'he gives him'), cholensak (*cíuləms* 'bird'), milap (*muíilaan* 'he gives him').]

Pictograph: Again the four quarters of the earth are depicted,²⁷ together with representations of creatures that live in the water (fish), in the water and on land, or mythically under the land (the turtle), on the land (quadruped), and in the air (bird).² Note that the living beings are listed in a counterclockwise order.

Comment: This is consonant with the deeds of the Great Spirit as conceived of by the modern Delaware. The Shawnee make a point of the fact that the Great Spirit first created man and woman, and afterward gradually formed all things which were to provide them with subsistence. It is perhaps significant that the Delaware here enumerate fish and turtles first in their listing of flesh foods.

14. Makimani shak sohalawak Makowini
 Nakowak amangameek
 Makimani Bad Spirit
 Shak But
 Sohalawak he creates them
 Nakowini bad beings
 Nakowak Black Snakes
 Amangameek Manitoes or large reptiles.



I, 14. "But another powerful manito created powerful men and those water monsters. . ."

[Makimani (*maximaníttu* beside *maxánhtu* 'big manito'; cp. *mahtánhtu* 'bad manito, devil'), shak (*šúkw* 'but'), sohalawak (*kwišeeléntamn* 'he creates it'), makowini (*maxuwinnu* 'big man'), nakowak (*néeki* 'those' and *óok* 'and'), amangameek (*amánkameek* 'water monster').]

Pictograph: The dot in the head circle of this figure shows that the being represented is divine or hallowed,²⁰ in this case a manito, whose long, upright body symbolizes power;²¹ the two up-curving lines over his head, evil.²² The two horizontally placed figures represent a serpent² and a water monster,²⁷ both evil as shown by the fanglike lines projecting from their heads. The transverse lines on the bodies of both the serpent and monster also show their sinister nature,²² while the two intersecting lines above the ground line²¹ mean war or strife.²⁴

Comment: This is the first reference to that powerful evil spirit who, according to present-day Delaware belief, created and controls all evil things. The Shawnee and other related tribes also believe in the existence of a very powerful and evil spirit, now identified with the Christian devil. In their mythology the Shawnee lay great emphasis on various water monsters, chief among whom is a great horned serpent. The latter, often described as having one green and one red horn, is mentioned frequently in the mythologies of Eastern Woodlands groups.

15. Sohalawak uchewak, Sohala-wak pungusak
 Sohala-wak he creates them
 uchewak flies
 pungusak gnats



I, 15. "... he created the flies and he created the mosquitoes."

[Sohalawak (*kwiišeelántamən* 'he creates it'), uchewak (*uuccéeyok* 'flies'), sohala-wak (*kwiišeelántamən* 'he creates it'), pungusak (*púnkwsak* 'mosquitoes').]

Pictograph: Of the ten double figures appearing in the Walam Olum it is obvious that six are meant to be read from left to right. In one, the reverse is true. In the three remaining cases we shall, by inference, read from left to right.

This inference is substantiated by the fact that in all cases except two (III, 9, and V, 16) our figures appearing in profile or in plan always face to the left. In almost all systems of pictography the figures face the direction from which they are supposed to be read. (See Mason, *History of the Art of Writing*, p. 115.)

The crosses to the left we therefore call flies and the x's to the right mosquitoes.² The emblem of the evil²² spirit²⁰ is seen below the ground line,³¹ the position conveying the idea of absence or death.¹⁷

Comment: A modern Delaware text mentions insects as among those evil beings that belong to the evil spirit. The Shawnee say that flies, gnats, and mosquitoes, specifically, belong to the devil; Shawnee youths are not allowed to quest for visions in the summer months because at this time the streams in which boys must bathe are rendered unclean by the insect creations of the evil spirit which hover over the waters.

16. *Nitisak wemi owini w'delsinewuap*

Nitisak - friends

wini "all

owini beings

w'delsinewuap were there



I, 16. "Everybody behaved, seeing friends everywhere. . ."

[Nitisak (*niittisak* 'my friends'; cp. *wiittisa* 'his friends'), wemi (*wéemi* 'all'), owini (*awéen* 'person'), w'delsinewuap (*telsiin-* 'to do so' and *neew-* 'to see').]

Pictograph: Here again the parallelogram represents the four quarters.²⁷ The four outside semicircles mean all lands,⁴² the four small circles in the corners indicate all or many people,¹ while the small triangle in the center is here used as a symbol for friendliness, pleasure, and peace.²⁸

Comment: A period of peaceful living immediately following the creation is also referred to by the Shawnee in their creation myth.

17. Kiwis, Wunand, wishimanitoak essopak
 Kiwis . . . then being
 Wunand a good god
 Wiiki good
 Manitouak spirit
 essopak were



I, 17. "... and was happy, staying with the manitos."

[Kiwis (Zeisberger gives Kitschiwi 'truly, verily'; cp. Ojibwa *kiiwossee* 'he hunts'), wunand (*oolamáni* 'Delaware clan' or *wlaatéenamu* 'he is happy' but Brinton gives 'A good god'), wishimanitoak (*wiicci-* 'with' and *manottúuwak* 'manitos'), essopak (*ahpúak* 'they stay').]

Pictograph: Once more the glyphs for the celestial arch,⁹ the sun,⁶⁸ and the double ground line signifying flat land appear,⁴¹ with representations of the early, hallowed²⁰ Lenape⁴³ at each end.

Comment: Frequent mention of these manitos is made in modern Delaware texts. Among those subordinate deities created by the Great Spirit and referred to as manitos in Delaware prayers are eagle, trees, vegetation, water, fire, tobacco, herb medicines, corn, turtle, bear, and other animals.

18. *Nijini netami lennuwak, Nigoha netam
ni okwewi, nantinewak*

Nijini the Jins
netami the first
lennuwak men
nigoha first mother
netami first
okwewi wives
nantinewak fairies also



I, 18. "Those young men, the first men, went after those mothers, the first women. . . ."

[*Nijini* (*néeki* 'those' and *skinnúwak* 'young men'), *netami* (cp. Ojibwa *nittam* 'at first'), *lennuwak* (*lénúwak* 'men'), *nigoha* (*néeki* 'those' and *kohéesa* 'his mother'), *netami* (cp. Ojibwa *nittam* 'at first'), *okwewi* (*xkwéeyok* 'women'), *nantinéwak* (*noottéménéeyo* 'they go after it'; cp. *nooláao* 'he goes after him').]

Pictograph: The lines connecting the figures⁷⁴ of the man and woman,²⁵ in this pictorial symbol, represent bonds of close relationship.⁵ The position of the man's legs indicate motion or pursuit as stated in the text.⁷¹ The four-feathered head-dresses show the veneration the Lenape had for their ancestors.⁷³

Comment: The Shawnee, in their creation story, give particular heed to the circumstances surrounding the union of the first man and first woman. This happens shortly after the creation of mortals, while the first man and first woman are still under the direct tutelage of the Great Spirit in his domain above the earth.

19. Gattamin netami mitzi nijini nantiné
 Gattamin = fat fruit
 netami = the first
 mitzi = food
 Nijini = the Jim
 Nantiné = the fairies



I, 19. "... who went to pick berries, the first food, while the young men followed them."

[Gattamin (*kahtamínheew* 'she goes out to pick berries'), netami (cp. Ojibwa *nittam* 'at first?'), mitzi (*míitsu* 'he eats'), nijini (*skinnu* 'young man'), nantiné (*nóottémén* 'he goes after').]

Pictograph: The cluster of small circles represents berries.⁴ The ascending curved line conveys the idea of a road or trail,⁵⁶ and the face of two colors is probably a symbolic representation of man and woman in one element. The double ground line signifies land⁴¹ and the four-feathered headdress again shows veneration.⁷³

Comment: Berry-picking expeditions, for many of the northern Plains tribes, were notable occasions for amatory encounters. Among the Ojibwa of the Great Lakes region kidnaping of women by men from hostile groups frequently occurred during such expeditions. Woman's role as gatherer of wild plant foods was practically universal throughout North America.

20. *Wemi wingi-namenep, wemi ksin elenda
mep, wemi wullateamanuwi* (happy
Wemi all
Wingi willingly
namenep pleased
Wemi all
Ksin easy
elendamyp thinking.



I, 20. "Everyone was glad and pleased, everyone felt lively, everyone was happy."

[*Wemi* (*wéemi* 'all'), *wingi-namenep* (*winki-* 'to like to' and *wæleeléntam* 'he is happy, pleased'; cp. Ojibwa *ampee* 'please'), *wemi* (*wéemi* 'all'), *ksin-elendamep* (*kš-* 'fast' and *-eeléntam* 'to be, feel, think'), *wemi* (*wéemi* 'all'), *wullateamanuwi* (*wôlaatéenamu* 'he is happy').]

Pictograph: The square means great²⁹ or possibly the four quarters,²⁷ and the double ground line, flat land.⁴¹ Both the figures within the square occur only once in the Walam Olum, rendering their interpretation difficult. The one at the top possibly may represent a cooking vessel—"the full dinner pail."⁵⁰ The lower glyph within the square may represent a month, a figure prominent in early Chinese picture writing and in Inca ideographs (Posnansky, *Tihuanacu, The Cradle of American Man*, I, 124).

Comment: This reference to a golden age expresses concepts in harmony with modern Delaware ideas, and those of many other Eastern Woodlands groups, concerning life after death. Souls of the virtuous dead, it is thought, dwell in a region above the earth, where they exist without care, worry, or sickness.

21. Shukand eli kimi mekenikink wakon
Powako init'ako.

Shukand ... But then

Eli ... while

Kimi ... secretly

meknikink ... on Earth

W'akon ... Snake God

Powako ... Priest Snake

init'ako ... Worship Snake

I, 21. "But when the snake god, the guardian spirit, the worship snake did things secretly on the continent, . . ."

[Shukand (ʃúkw 'but'), eli-kimi (eeli 'when' and kiimíiw 'he does so secretly'), mekenikink (max- 'big' and hákkink 'on earth'), wakon (Rafinesque gives 'Snake god'; cp. manottuuwixkuuk 'manito snake'), powako (paóokan 'guardian spirit'), init'ako (Rafinesque gives 'Worship snake').]

Pictograph: In this pictograph the evil serpent² appears under the land lines,⁴¹ which position together with the particular curve of his body is said to imply secrecy.⁵⁰ The three vertical lines stand for peril.⁵¹

Comment: The concept of a powerful snake which is controlled by the evil spirit, and which can be employed by mortals for evil conjuring, exists among the Delaware of the present time. This snake acts somewhat as a guardian spirit for wicked shamans. The Shawnee entertain similar ideas concerning the efficacy of a piece of the heart of a horned underwater monster, which is used in working witchcraft.

22. Mattalugas pallalugas maktaton owagan
 payat-chik yutali

Mattalugas - wickedness
 pallalugas - sin -
 maktaton - unhappiness
 owagan - deeds
 payat-chik - coming them
 yutali - stand there



I, 22. ". . . he did mean things, he did destructive things, and black deeds came there, . . ."

[Mattalugas (*mahtaluukáasu* 'he does mean things'), pallalugas (*pal-* 'to destroy' and *-aluukáasu*, 'he does so'), maktaton (cp. Ojibwa *makkatee-* 'black'), owagan (*xuwáakkan* 'good deeds'), payat-chik (*páhiit* 'they come'), yutali (*yutáli* 'just there').]

Pictograph: A glyph very much like this one, reported in the literature, means "bad."¹⁸ The lines and circles in the original pictographs were red, the color for war, and the color that captives intended for the stake were painted. The red circles might represent dead or slain persons.

Comment: The capacity for evil of the powerful snake god is illustrated by his deeds. The modern Delaware also associate black with death and the beyond.

2.	Mak̄t̄apan̄ payat	(payat = coming)
	Wihillan̄ payat	
	Mb̄uḡan̄ payat.	
Mak̄t̄apan̄	Bad weather	bad
Wihillan̄	Destroying or distemper	^{or}
Mb̄uḡan̄	Death	

I, 23. "... bad weather came, killing came, death came."

[Mak̄t̄apan̄ (*maht̄áappan* 'it is bad weather'), payat (*páat* 'he comes'), wihillan̄ (*w̄nihiláao* 'he kills him'), payat (*páat* 'he comes'), mboagan (*cp. Ojibwa nimpo* 'he dies' and noun-forming ending, *-aakkan*), payat (*páat* 'he comes').]

Pictograph: The fanglike sign for evil²² is predominant in this figure, being repeated five times. The three small semicircles above the ground line²³ probably represent clouds²⁴ (of evil). A figure below the ground line implies death or absence.¹⁷

Comment: No mention has been made as yet of the Delaware using corn as food. For a people who depend upon hunting and gathering wild foods, protracted bad weather often spells starvation and death. References to starvation due to heavy snowstorms when hunting could not be successfully engaged in are common in Ojibwa tales, for example.

24. Wonwemi wiwunchkamik atak kitahikan
Kan netamakiçpit.

Wonwemi — this all
wuwunch — very long
kamik — ago or far time
atak — beyond
kitahikan — great Ocean
netamaki — first land
çpit — at

— II

24

I, 24. "Everybody from over there across the water stayed in the large villages of the first land."

[Won (*awéen* 'person'), wemi (*wéemi* 'all'), wiwunch (*wəncí* 'from there'), kamik (*kaamínk* 'across the water'), atak (*uuttéenank* 'in village'), kitahikan (*kiitahíukkan* 'something which is very big'), netamaki (cp. Ojibwa *nittam* 'at first' and Delaware *hákki* 'earth'), epít (*éeppit* 'where he stays').]

Pictograph: The long parallel lines mean bonds of relationship.⁵ Larger squares are used in the Walam Olum to represent "great," and smaller ones, dwellings or villages.²¹ In this case they mean villages. The symbols of the turtles² are perfectly plain, yet it is hard to understand why the evil or lying-tongue symbol⁴⁵ should be attached to the turtle to the right unless it be an expression of a very early concept of duality.

Horizontal brackets like the above occur at the end of the first and second songs, after the 16th, 32d, 48th, and 64th verses of the fourth song, and after the 20th and 40th verses in song five. Thus at every 16 to 24 lines there is a bracket. Most of these are at natural breaks in the story but it may be that they marked ten bundles of record sticks.

Comment: The historic Delaware lived in semipermanent bark-house villages; the same type of village life is envisaged for the Delaware in their "first land."

WALAM OLUM

Book II

1. *Wulamo maskanako anup lennowak makowini essopak*

Wulamo Long ago
 maskan powerful
 also Snake
 anup when
 lennowak men also
 makowini bad beings
 essopak had become



II, 1. "Long ago there was a strong snake when men, the big men, stayed there."

[Wulamo (*lóomuwe* 'long ago'), maskanako (cp. Ojibwa *maškawisi* 'he is strong'; Delaware *xkíuk* 'snake'), anup (*néeli* 'while'; cp. Ojibwa *appi* 'when'), lennowak (*lónuwak* 'men'), makowini (*maxuwinnuwak* 'big men'), essopak (*ahpúak* 'they stay').]

Pictograph: The evil serpent² is here shown by the long vertical line to be powerful.⁵¹ Power is also suggested by the length of the man's body.⁵² His three-feathered headdress proclaims him a Lenape.⁴³ Membership in that tribe is also indicated by one oblique "feather" on the head or by a simple circle without decoration. The two horizontal lines show that starvation and calamity prevailed.⁷

Comment: In Seneca and Shawnee mythology two powerful grandsons are born to the female Creator. One is helpful, the other wantonly destructive. The wicked son is envisaged as a great snake by the Shawnee. Human beings who lived on this earth prior to the deluge are said by the Shawnee to have been "larger than people are now" and longer lived. Otherwise they did not differ from present-day Indians.

2. Maskanako Shingalusit nijini essopak
 shawelendamep eken shingalan.
 Maskanako, strong snake
 shingalusit for
 nijini essopak the jin had become
 shawelendamep, became troubled
 eken together
 shingalan - hating



II, 2. "The strong snake, who was hated, and those young men stayed there: the hated one tried to go about to forbidden places."

[Maskanako (II, 1, 'strong' and *shik* 'snake'), shingalusit (cp. *ninkas* 'I hate him'), nijini (*niki* 'those' and *skinnak* 'young men'), essopak (*shpiak* 'they stay'), shawelendamep (*shnelebiam* 'he wants to go to a forbidden place'), eken (*ik* 'thereabouts'), shingalan (cp. *ninkas* 'I hate him').]

Pictograph: This ideograph shows strife between the evil serpent² and the Lenape.⁴ The line crossing the figure of the man⁴ means starvation or calamity.⁵ There are weapons in his hands⁵ indicating violence.

Comment: One such forbidden place for all Woodlands tribes would be the spot where a sacred bundle was kept. Among the Shawnee the divisional bundles were hung up in small bark shelters. Such shelters and the ground around them were taboo to menstruating women and their husbands. Other tabooed spots were the huts to which women retired during their menstrual periods and when giving birth to children.

3. Nishawi palliton, nishawi machiton
 nishawi matta lungundowin
 Nishawi. Both
 palliton - fighting
 machiton - perishing
 matta - not
 lungundowin peaceful or keeping peace

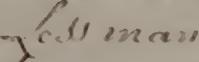


II, 3. "Each of the two were destroying things, each of the two were in bad circumstances: the two of them did not keep peace with each other."

[Nishawi (*níiša* 'two'), palliton (*políituun* 'he destroys it'), nishawi (*níiša* 'two'), machiton (*mahčíittuun* 'it's fixed bad'), nishawi (*níiša* 'two'), matta (*máttá* 'not'), lungundowin (*wolankúntuuvak* 'they keep peace with each other').]

Pictograph: Here the armed⁷⁸ and powerful⁸¹ Lenape⁴³ and the evil serpent² are shown to be in combat (the X is always a sign of war⁷⁴). The calamity or starvation line passing through the bodies of both⁷ tells of bad circumstances all around.

Comment: Graphic details of the destructiveness of the wicked one of the Creator's two grandsons are given in other tribal accounts: the evil grandson made deer large so that they might eat humans (Shawnee), he made the sap of maple trees thin (Shawnee, Seneca), he spoiled the fruits of certain trees and shrubs (Shawnee, Seneca). The two brothers finally reached a deadly disagreement and fought fiercely (Seneca).

4 Mattapewi with Nihantuwit mekwaoan
 Mattapewi  with man
 wiki with
 Nihantuwit Dead keeper
 mekwaoan fighting



II, 4. "They were quarrelsome as they lived there: they were lazy and they were fighting."

[Mattapewi (*mahtaappéeyu* 'he is quarrelsome'), wiki (*wiikku* 'he lives there'), nihantuwit (*núulhant* 'he is lazy'), mekwaoan (cp. Ojibwa *miikaaso* 'he fights' and Delaware *mahtáakeew* 'he fights').]

Pictograph: The four-feathered headdress on the figure⁷⁴ to the left signifies that it represents a venerated being.⁷⁵ The three-feathered one to the right, of course, means Lenape.⁷⁶ The length of both bodies show power.⁷⁷ The horizontal, starvation line,⁷⁸ and the X of war,⁷⁹ denote deplorable conditions.

Comment: Does this refer to quarrels between the good and evil manitos, or to quarrels between the wicked snake manito and human beings? Allusion is made to the people fighting during the era preceding the deluge in one fragmentary tale recently collected from a mixed-blood Seneca-Shawnee. However, in most Shawnee and Seneca myths the good and evil grandsons of the Creator are the ones mentioned as opposing each other.

3. Maskanako gishi penauwelen damep
 lennowak owini palliton
 Maskanako Strong Snake
 gishi - ready
 penauwelen damep - resolved
 lennowak Men
 owini beings
 palliton to destroy or spit



II, 5. "The strong snake quickly made up his mind about the men: he destroyed possessions of the people . . ."

[Maskanako (II,1, 'strong' and *xkúuk* 'snake'), *gishi* (*kxi-* 'fast'), *penauwelen-damep* (*pənaelšntam* 'he makes up his mind'), *lennowak* (*lənuwak* 'men'), *owini* (*awéen* 'person'), *palliton* (*poliituum* 'he destroys it').]

Pictograph: Here is depicted the evil (pronged headdress),²² lying (the "two-way speech" issuing from its mouth),⁴⁵ sinister (striped body)⁶² serpent.²

Comment: The most valued possessions of the people would be their sacred bundles and other ceremonial paraphernalia. Any material possessions, such as houses, weapons, clothing, or utensils would be regarded as of little or no value in comparison.

6. Nakowa petonep, amangam petonep,
 akopehella petonep
 Nakowa (Black Snake)
 amangam (Monster)
 akopehella (Snake water rushing
 petonep he brought).



II, 6. "... he brought these things: he brought great quantities of water, he brought rapids . . ."

[Nakowa (cp. *néeki* 'those'), petonep (*pwéettuun* 'he brings it'), amangam (*amank-* 'big' and *-kkam* 'body of water'), petonep (*pwéettuun* 'he brings it'), akopehella (*kšəppéhelaak* 'rapids'), petonep (*pwéettuun* 'he brings it').]

Pictograph: The evil,²² lying,⁴⁵ sinister,⁶² serpent,² is shown here with the glyphs for water (the bowl-like figure),⁷⁵ clouds (the small semicircles above the bowl),¹³ and peril (the three vertical marks).³⁷

Comment: The association of a snake-monster with the deluge is paralleled in Shawnee accounts of the culture hero piercing a transparent headless snake and releasing a flood of water from inside the monster's body. As in the Delaware account given above, the water bursts forth in great quantities and quickly covers the earth.

7. Pehella pehella, pohoka pohoka, eshohok
 eshohok, palliton palliton.
 pehella (in much water, running)
 pohoka (in much go to hills)
 eshohok (in much penetrat.)
 palliton (in much spilling or destroying)

II, 7. "... so that the water ran and ran, spreading in hollows and making hollows, penetrating here and penetrating there, destroying something here and destroying something there."

[Pehella pehella (*kšəppéhelee* 'water runs'), pohoka pohoka (*pohwée* 'it's hollow' and *-əkkonk* 'spreading'), eshohok eshohok (*eešihilee* 'it penetrates like lightning'), palliton palliton (*poliituun* 'he destroys it').]

Pictograph: In this pictorial symbol the celestial arch⁹ is shown partly submerged in the sign for water.⁷⁵ The evil serpent² is also secretly⁵⁹ present. The two small circles represent the Lenape in a form without head ornament.⁴³

Comment: This is a vivid description of the deluge. In contrast many accounts give bare mention of water flooding the earth. But the deluge story, brief or detailed, is widespread in North America (Bering Strait Eskimo, Mackenzie River tribes, Plateau peoples, North Pacific Coast, California, Southwest, Plains, and Eastern Woodlands groups).

8. *Tulapit Menapit Nanaboush Maskaboush*
Owinimokom Linowimokom
Tulapit at Tula or turtle land
Menapit at that land
Nanaboush Nana-Hare
Maskaboush Strong Hare
Owinimokom of being's grandfather
Linowimokom of men's father (he became



II, 8. "Nenabush stayed on Turtle Island: he was a powerful rabbit, the grandfather of people, the grandfather of men."

[Tulapit (-túulpi 'turtle'), menapit (*manáattay* 'island' but cp. Ojibwa *maniss* 'island' and Delaware *éeppiit* 'where he stays'), Nanaboush (cp. Ojibwa *neenapoš* 'the Culture Hero'), maskaboush (cp. Ojibwa *maškawisi* 'he is strong' and Ojibwa *waapooosoo* 'rabbit'), owinimokom (*awéen* 'person' and *moxíumsa* 'his grandfather'), linowimokom (*lónu* 'man' and *moxíumsa* 'his grandfather').]

Pictograph: The four-feathered figure of Nenabush⁴⁹ appears here in the first of three occurrences in the Walam Olum. The turtle glyph² is apparent and the double ground lines represent land.⁴¹

Comment: The culture hero appears under the name Nenabush in Ojibwa and Menomini mythology, as well as in the Delaware Walam Olum. The Menomini form of the name is *me²napus* and is translated 'Big Rabbit'; in a Menomini myth Nenabush is said to have sometimes appeared to human beings not as a man, but in the form of a little white rabbit.

Throughout eastern North America, relationship terms are extended to apply to deities, as well as to natural phenomena.

In the verse above we have our first reference to the oft-recorded Delaware belief, also shared by the Shawnee and Seneca, that the turtle represents the earth, or that the earth is an island which is supported by a large turtle.

9. Gishikin-pommixin tutagishatten-lohxin
Gishikin Being born
pommixin creeping
tutagishatten — at Tulu he is ready
lohxin — to move and dwell.



II, 9. "The wind was blowing but he crept along and untied the young turtle."

[Gishikin-pommixin (*kšáxan* 'it's windy' and *pamíixiin* 'he creeps'), tutagishatten-lohxin (*tahkóx* 'turtle', with initial syllable reduplication and diminutive suffix *-tøtt*; and cp. *lláxma* 'I untie him').]

Pictograph: Nenabush,⁴⁹ a weapon in his hand,⁷⁸ the turtle² and land⁴¹ are here figured.

Comment: This association of Nenabush with the wind is reminiscent of Menomini and Ojibwa myths which narrate that the mother of Nenabush was impregnated by a powerful wind that suddenly arose after she had broken a taboo.

The turtle on whose back the earth-island rested was evidently tied to the island; the Shawnee, also, state that a line passes under the turtle who supports the earth. This concept is in harmony with other aspects of Woodlands culture; prisoners taken in war, for example, were led about with braided ropes or "captive leaders" tied around their necks.

10. *Owini linowi wemoltin*
Sehella gahani pommixin
Nahawi tatalli tulapin.

Owini ... Beings
 linowi ... Men
 wemoltin ... all go forth
 Sehella ... fluent
 gahani ... shallow water
 pommixin ... creeping
 Nahawi ... above water or afloat
 tatalli ... which way or shall there
 tulapin ... turtle back



II, 10. "The people and the men all kept going on: they crept along the river of rapids there downstream to Turtle Island."

[Owini (*awéen* 'person'), linowi (*lénú* 'man'), wemoltin (*wéemi* 'all' and cp. *illuuxwéyank* 'we'll be going right on'), Pehella gahani (*kšéppéhelaak* 'rapids' and *-hanee* 'river'), pommixin (*pamiixiin* 'he creeps'), Nahawi (*naahíi* 'downstream'), tatalli (*táli* 'there', with initial syllable reduplication), tulapin (*-túulpi* 'turtle' and locative suffix *-nk*).]

Pictograph: The bowl emblematic of water,⁷⁵ the upper semicircle representing land,⁴² and the one-feathered headdresses of many¹ Lenape,⁴³ make up this pictograph.

Comment: The river of rapids mentioned herein presumably refers to the rapids which the powerful snake caused when he unloosed the deluge.

11. Amangamek Makdopannek alandyuwek
 Amangamek, Monsters of sea (metzipannek
 Makdopannek - they were many
 alandyuwek - some of them
 metzipannek - they did eat

II, 11. "The water monster ate some of them but there were many people."

[Amangamek (*amánkameek* 'water monster'), makdopannek (cp. *kamaxeelhúmema* 'we are numerous': *maxeel-* 'many' and *-aappeeyok* 'people'), alandyuwek (*aalšnti* 'some'), metzipannek (*míitsu* 'he eats').]

Pictograph: The poor Lenape⁴³ are here pictured as being subjected to peril (the three vertical marks)³⁷ by the sinister⁶² water monster.⁷⁷

Comment: The water monster mentioned here may be akin to the transparent headless snake monster which the Shawnee refer to as the Water king. In its cannibalistic propensities, however, the Delaware water monster bears more of a resemblance to the Potawatomi great horned water-panther, which maliciously sucks people into the water and drowns them.

12. Manito-dasin mokol wichehemp
 Palpal payat payat wemichemap
 Manito - spirit
 dasin - Daughter
 mokol - Boat
 wichehemp - helped
 palpal - Come come
 payat payat - coming coming
 wemichemap - all helped

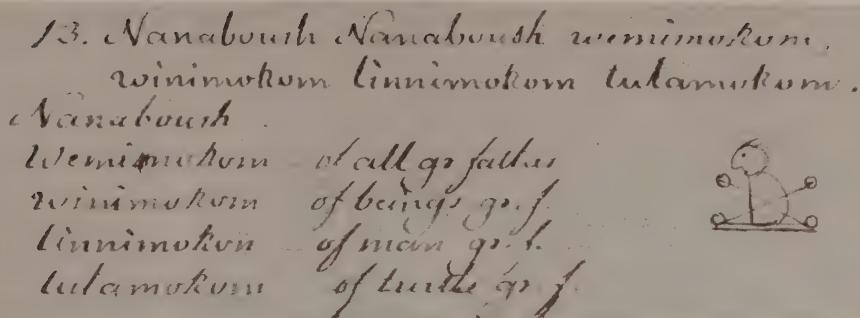


II, 12. "The daughter of the manito helped them with a canoe; and as they came from the opposite direction, another one helped them all . . ."

[Manito-dasin (*manóttu* 'manito' and cp. *ntáan* 'my daughter'), mokol-wichehemp (*múxuul* 'boat' and cp. *nawíiccóma* 'I help him'), Palpal (*pali-* 'another direction'), payat payat (*páat* 'he comes'), wemichemap (*wéemi* 'all' and *nawíiccóma* 'I help him').]

Pictograph: The three-lined head ornament shows this woman (skirt)²⁵ to be related to the Lenape.⁴³ Her arms are raised in supplication.⁵² Some Lenape⁴³ are obviously in a canoe or boat⁸ with her.

Comment: The beneficently inclined woman appears to be the daughter of the water monster; her father is explicitly given in the noncommittal category of manito. It is not improbable that she was a mermaid, since the mermaid concept is a common Delaware belief; and mermen occur in the Ojibwa, Sauk, and perhaps even Menomini pantheons.



II, 13. "...he who was Nenabush, Nenabush the grandfather of all, grandfather of people, grandfather of men, grandfather of the turtle."

[Nanaboush Nanaboush (cp. Ojibwa *neenapoš* 'the Culture Hero'), wemimokom (*wéemi* 'all' and *moxíumsa* 'his grandfather'), Winimokom (*awéen* 'person' and *moxíumsa* 'his grandfather'), linnimokom (*lénú* 'man' and *moxíumsa* 'his grandfather'), tulamokom (-*túulpi* 'turtle' and *moxíumsa* 'his grandfather').]

Pictograph: The elements of this drawing indicate Nenabush,⁴⁹ the four quarters of the earth (the diagonal lines),²⁷ many men or Lenape (the small circles),⁴⁸ and flat land (the double ground line).⁴¹

Comment: Grandparent terms are usually applied to those supernatural beings which play active and important roles in the mythology and the religion of the Woodlands groups.

84. Linapi ma tulapi ma tulapewi
 tapitawi
 Linapi ma then there
 tulapewi turtle there
 tulapewi turtle they
 tapitawi altogether



II, 14. "The Delaware were there where the turtle was, where the turtle had a tie-line about his waist . . ."

[Linapi-ma (*lənáappe* 'Delaware tribe or individual' and cp. Ojibwa *imaa* 'there'), tulapi-ma (*-túulpi* 'turtle' and Ojibwa *imaa* 'there'), tulapewi (*-túulpi* 'turtle' and verbal formative *-u*), tapitawi (*tapahtéeppi* 'belt tied around waist').]

Pictograph: Symbols of the Lenape⁴⁸ and the turtle² are here clearly drawn.

Comment: This probably refers to the fact that the Delaware arrived at the center of the world, perhaps also at the highest spot on Turtle Island. The notion that the turtle was tied to the earth is clearly enough expressed in the above verse.

15. Wishanem tul peoi pataman tulpeoi
paniton wuliton

Wishanem ... Frightened
tul peoi ... turtle he
pataman ... praying
tulpeoi ... turtle is
paniton ... let it be
wuliton ... to make well



II, 15. "... where the turtle was they experienced fear, where the turtle was they prayed: that the other one cease doing what he was doing, that he repair what he had done."

[Wishanem (*wiisáasu* 'he is afraid': *wiisaa-* 'fear' and *-iinam* 'to experience'), tulpeoi (*-túulpi* 'turtle'), pataman (*páatamaaw* 'he prays'), paniton (cp. Ojibwa *poonittaa* 'he stops in what he is doing'), wuliton (*uulíituun* 'he fixes it').]

Pictograph: The uplifted arms of the figure of the Lenape⁴⁸ indicate that he is praying,⁵² while the dot in the circle marks him as a hallowed being.²⁰ In this glyph the turtle² is shown from above.

Comment: In a Shawnee myth narrating how twelve powerful men overcame an evil water monster, the means of dealing with such evil powers is described in detail. Recourse is made not only to prayer, but to the recitation of magical songs and formulae, and to the use of sacred objects and powerful medicine.

16 Kshiphehelen Penkwihilen
 Kwamipokho Sitwalikho
 Maskan Wagan Palliwi palliwi
 Kshiphehelen Water is running off
 penkwihilen it is trying
 Kwamipokho plain and mountain
 Sitwalikho bath of cave
 Maskan powerful or dire
 Wagan Action
 Palliwi elsewhere.

II, 16. "As the water rippled on, long extended areas became dry even where there were hollows and in caves: the powerful snake went some place else."

[Kshiphehelen (*kšəppéhelee* 'water runs'), penkwihilen (*pénkwsu* 'he's dry': *penkw-* 'dry' and *-ihilee* 'to become'), Kwamipokho (*kwənaamúuwe* 'extending a long way' and *pohwée* 'it's hollow'), sitwalikho (*snáalakw* 'cave'), Maskan (cp. Ojibwa *maškawisi* 'he is strong'), wagan (cp. Rafinesque's form for 'Snake god', wakon, and *manattuuwéixkuuk* 'manito snake'), palliwi palliwi (cp. *paliá* 'go another way!' and *paliuwóntahkwi* 'some place else').]

Pictograph: The bottom of the symbol for the large body of water⁷⁵ is missing and a smaller water glyph is in contact with a ground line,³¹ indicating a reduction of water. The pyramid enclosing the small triangle signifies a peaceful²⁸ land.⁴¹ Upon it rests the three-feathered head circle meaning the Lenape.⁴³

Comment: The Delaware version of the deluge here departs from the deluge myth as told by other Woodlands tribes. In the Delaware account some people were eaten by the water monster, to be sure, but there is no implication that the tribe was generally destroyed in the flood; in other Woodlands accounts all save a few beings living on the earth were drowned at the time of the deluge.

WALAM OLUM

Book III

1. *Pehellawtenk lennapewi tulapewini*
 psakwiken woliwikgun wittanktalli
Pehellawtenk Flood after
lennapewi true mainly
tulapewini turtle being
psakwiken close together 
woliwikgun live there
wittanktalli dwelling town there of talli

III, 1. "After the flood, the Delaware turtle men were crowded together: they lived well and stayed with the turtle."

[Pehella (*kšappéhelee* 'water runs'), wtenk (*wténk* 'after, behind'), lennapewi (*lənáppé* 'Delaware'), tulapewini (-*tiúlpi* 'turtle' and -*nnu* 'man'), psakwiken (*msakkwíixiin* 'he's crowded next to the wall'), woliwikgun (*wəl-* 'good, well' and *wííkku* 'he lives there'), wittank (cp. *wiittaéemak* 'the one I stay with, my spouse'), talli (*táli* 'there').]

Pictograph: The top circle is a sign for the Lenape,⁴³ the same square figure represents their dwellings or villages,²¹ and at the bottom is pictured the turtle.²

Comment: The turtle plays a prominent part in the religious ideology of all the eastern Algonquian-speaking people. Speck points out that the turtle is also held to be sacred in China, but that nowhere in the intervening area is marked religious significance accorded it. The Algonquian and Chinese beliefs may represent survivals of a very old belief once shared in common by the forebears of the two groups which are now widely separated from each other.

It will be noted that in this verse the Delaware are again specifically mentioned; the document from this point on becomes an historical, rather than a mythological account of one particular group of people.

2. Topan-akpinep Wineu akpinep
 Kshakan akpinep, Thupin akpinep
 Topan it freezes
 akpinep was there
 Wineu it snows
 Kshakan - it blows
 Thupin it is cold.



III, 2. "The water froze over where they stayed: snow came, the wind blew, and it was cold."

[Topan-akpinep (cp. Ojibwa *twaa?ipaan* 'water hole in ice', but Delaware *kpáttan* 'it freezes over'; and *ahpú* 'he stays'), wineu-akpinep (*wíinee* 'it's snowing' and *ahpú* 'he stays'), kshakan-akpinep (*kšáxan* 'it blows' and *ahpú* 'he stays'), thupinakpinep (*thée* 'it's cold' and *ahpú* 'he stays').]

Pictograph: The arc with the pendent lines is the pictograph for snow or cold.¹⁵ The diagonal lines at the side symbolize wind.⁸¹ The circle is the glyph for the Lenape,⁴³ placed upon what was probably intended to be a truncated pyramid indicating land.⁴¹

Comment: A northern early residence for the forebears of the Delaware is clearly enough indicated in this verse.

3. *Lowankwamink wulaton wtakan
tihill kelik meshautang sili ewak.*

Lowankwamink in Northly plain

Wulaton — to putting

Wtakan mild

Tihill coolness

Kelik much

meshautang — game

Sili — cattle

Ewak — they go



III, 3. "There where the land slopes north and at the time when the wind was blowing and the weather was getting cold, they secured many big deer and pieces of buffalo meat."

[Lowankwamink (*luuwanée* 'north' and *aakamínee* 'land contours, sloping land'), wulaton (cp. *wóláatuun* 'he puts it away' and *wóláatuu* 'he has it'), wtakan (*táxan* 'wind blows cool or cold'), tihill (*tíhilee* 'it's getting cold'), kelik (*xéeluuk* 'they are many'), meshautang (cp. Ojibwa *mišši* beside Delaware *max-* 'big'; and Delaware *ahtú* 'deer'), sili ewak (*siiliéyohko* 'pieces of buffalo meat').]

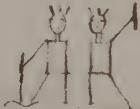
Pictograph: The vertical line with the three cross lines conveys the thought of prosperity.⁵³ It is interesting to note that three lines crossing a vertical line mean just the opposite of three short vertical lines rising from or crossing a horizontal line, the glyph for peril.⁵⁷ The flat parallelogram again means land,⁴¹ while the two short vertical lines indicate north.¹⁹ The directions in the Walam Olum bear the same relation to the "page" as our maps. The top is north, the bottom south, to the left west, and to the right east.

Comment: The Ob, the Yenisei, the Khatanga, the Olenek, the Lena, the Yana, the Indigirka, and the Kolyma rivers in northern Asia all drain into the Arctic Ocean. In the northern part of the New World, however, the most westerly of the large rivers, the Yukon, flows across Alaska in a southwesterly direction to drain

into Bering Sea. The Mackenzie, several hundred miles east of the Yukon, is the most westerly of the large New World rivers draining into the Arctic Ocean.

The references to a large deer and buffalo need not be taken too literally; many tribes call recently introduced domesticated animals, such as the horse or cow, by names which once referred to other wild species.

Le Chintanes sin powalessin peyachik
 wiikhichik elowichik pokwihil
 Chintanes strong
 Sin to be
 powa rich
 lessin to be
 peyachik comes
 wiikhichik litters
 elowichik hunters
 pokwihil they divided or broken



III, 4. "Those who were strong and those who had power came away, separating from those who remained living there."

[Chintanes-sin (*ciittan̄su* 'he's strong'), powalessin (cp. *ahooppéeyu* 'he's rich' and *mpaóola* 'I received supernatural power from him'; plus intransitive formative *-lsu*), peyachik (*peecihileew* 'he comes'), wiikhichik (*wíikku* 'he lives there'; cp. Delaware *hakíiheew* beside Ojibwa *kittikee* 'he farms'), elowichik (*ehalaéecciik* 'the hunters'), pokwihil (*puukwihilee* 'it's torn apart').]

Pictograph: The length of the bodies³⁴ of the Lenape⁴³ here exhibited would signify power,⁵¹ and the wavy base line,⁵¹ that they are going along a trail. They are obviously armed.⁷⁸ The positions of the two figures clearly suggest the text.

Comment: The hunters are the first group to separate from the main body. They disperse in all directions.

References to the breaking away of dissatisfied or more adventurous members of a group from the parent body are of frequent occurrence in American Indian folklore; the Shawnee and Kickapoo both relate, for example, that they were once one people, but that the Kickapoo separated from the Shawnee because of a quarrel over bear meat. Historic instances of groups separating from the main body and establishing themselves as independent units have also been noted among many tribes.

5. Eluwi chitanesit eluwi takauwesit
 Eluwi chidit elowichik delsinewo

Eluwi - most
 chitanesit - powerful
 Eluwi takauwesit - the best
 Eluwi chiksit - most holy
 Elowichik - hunters
 delsinewo - they are



(united to next sign)

III, 5. "The strongest, the gentlest, and the most religious did this: they were the hunters."

[Eluwi-chitanesit (cp. *ahálowi* 'more so, most', *aləwiiwələsu* 'he is the best one'; and *ciittanəsu* 'he is strong'), eluwi takauwesit (*aləwiiwələsu* 'he is the best one' and *tháwsu* 'he is gentle'), eluwi chiksit (*aləwiiwələsu* 'he is the best one' and cp. Ojibwa *ciissakkii* 'shaman, religious person'), elowichik (*ehalaéecciik* 'the hunters'), delsinewo (*telsiinéeyo* 'they do so').]

Pictograph: The relative importance of the hunters among the Lenape⁴³ is shown by the size of this pictograph as compared to others. An arrow indicates the hunter,³⁵ the length of his body,³⁴ power,⁵¹ and the circle within, a brave heart.⁶ The object in his upraised arm to the right is probably slaughtered game.

Comment: Among all the historic eastern Algonquian groups the two occupations which brought a man most prestige were hunting and warfare. To be known as a good hunter was to have an established reputation; this attitude is clearly reflected in the respect paid to the hunters in this verse.

6. Lowaniwi, Wapaniwi, Shawaniwi, wun
keniwi, Elowichik apakachik.

Lowaniwi — northlings

Wapaniwi — eastlings

Shawaniwi — southlings

Wunkeniwi — westlings

Elowichik — Hunters

Apakachik — Spreaders.

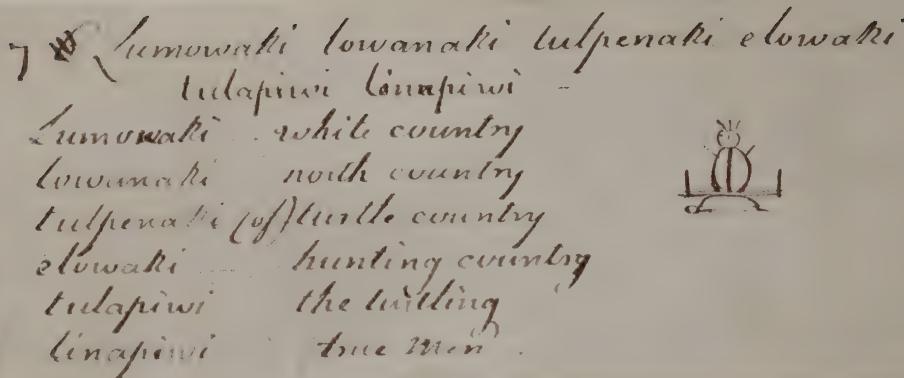


III, 6. "To the north, east, south, and west the hunters traveled."

[Lowaniwi (*luuwanée* 'north'), wapaniwi (*wehenciōppank* 'east'), shawaniwi (*šaawanéew* 'south'), wunkeniwi (*eheliwsükaak* 'west'), elowichik (*ehalaéecciik* 'the hunters'), apakachik (*peecihileew* 'he comes').]

Pictograph: The directions¹⁹ are shown by the double lines and the arrows symbolize the hunters.³⁵

Comment: The order of listing directions above corresponds to the clockwise circuit used by Delaware dancers during the twelfth night of dancing in the Big House ceremony. During the first eleven nights the dancing proceeds in a counter-clockwise direction, as it does also during Delaware night social dances.

7 

 Lumowaki white country

 lowanaki north country

 tulpenaki (of) turtle country

 elowaki hunting country

 tulapiwi the turtle

 linapiwi true men

III, 7. "In the land of long ago, the north land, the turtle land, there the Turtle Delaware were hunting."

[Lumowaki (*lóomuwe* 'long ago' and *-aaki* 'land'), lowanaki (*luuwanée* 'north' and *-aaki* 'land'), tulpenaki (*-túulpi* 'turtle' and *-aaki* 'land'), elowaki (*aláiyok* 'they hunt'), tulapiwi (*-túulpi* 'turtle'), linapiwi (*lénáappe* 'Delaware tribe or individual').]

Pictograph: Two lands are here noted by the two sets of parallel lines.⁴¹ The lower one is, of course, turtle land, and the one above the north land, so labeled by the two short direction lines¹⁹ at either end. One turtle² represents turtle land and the other the turtle clan of the Lenape.⁴³

Comment: The Turtle group remains at Turtle Island, in the west.

It may be of some significance to note that the historic Delaware were also divided into several groups; namely, the Turkey (bird, generically), the Turtle (reptile, generically), and the Wolf (quadruped, generically) subdivisions. In ceremonies such as the Big House rites, each subdivision enjoyed special privileges. Descent in a subdivision was reckoned through the mother and, what is important for us to note, each group had its own chiefs and council which enabled it to act as a self-determining body. In fact early missionaries such as Heckewelder were of the opinion that the three subdivisions were once geographical or local divisions of the tribe—a premise which derives some support from the verse under discussion.

8  Wemiacó yagawan tendki lakkawelendam
 nakopowa wemiowenlueen atam.
 Wemiacó — all (the) snakes
 yagawan — (in the) huts
 tendki — being (there) (8)
 lakkawelendam — troubled (afraid)
 nakopowa — the Snake spirit
 wemiowenlueen — to all saying
 atam — Let us go

III, 8. "All the other hearths in the land were troubled: everyone said to the pipe bearer, 'Let us depart.' "

[Wemiacó (*wéemi* 'all' and *-aaki* 'land'), yagawan (*yaakkáaon* 'shade house, small hut'), tendki (*tóntay* 'fire'), lakkawelendam (*sakkweeléntam* 'he is worried, troubled'), nakopowa (cp. *hupóokkan* 'smoking pipe' and *naxappóowe* 'pipe bearer'), wemi (*wéemi* 'all'), owenlueen (*awéeni* 'person' and *lúweew* 'he says so'), atam (*áattam* 'let's depart').]

Pictograph: An evil²² spirit²⁰ is shown in a wigwam²⁰ based upon a triple ground line²¹ with a direction mark at each end indicating the east.¹⁹ The curved line rising from the wigwam is the glyph for a road or trail⁵⁶ leading to the east.

Comment: Another group, weak and troubled, leaves Turtle Island for the east. The 'pipe bearer' or custodian of the pipe may refer to the keeper of whatever sacred object the forebears of the Delaware possessed.

Among the Shawnee a resolution on the part of one political subdivision to migrate elsewhere would be mentioned first of all to the custodian of that group's sacred bundle. The custodian might or might not be a political figure. In any major movement the Shawnee are concerned first of all with the transportation of their sacred bundle, since they feel that the welfare of each group is inextricably bound up with the proper care and respect of the group's sacred bundle.

8. Akhokink wapaneu wemoltin palliaal
 Kitelendam aptelendam.
 Akhokink - Snake land at
 wapaneu - easterly
 wemoltin - they go forth 
 palliaal - go away
 Kitelendam - earnestly
 aptelendam (but) grieving

III, 9. "And all these went on in another direction to the Snakes in the east: they were in earnest and they were grieving . . ."

[Akhokink (*xkúuk* 'snake' and locative suffix *-ink*), wapaneu (*wehencióoppank* 'east'), wemoltin (*wéemi* 'all' and cp. *illuuxwéeyank* 'we'll be going right on'), palliaal (*pali-* 'another direction'), kitelendam (*kiiteelóntam* 'he's in earnest'), aptelendam (*aapteelóntam* 'he grieves to death').]

Pictograph: The old western land,⁴² the semicircle, is pictured as being cut off or separated by a cleft⁴³ from the evil⁴⁴ snake⁴⁵ lands to the east.⁴⁶ The three curved lines probably represent the routes or trails⁴⁶ taken by the three divisions of the tribe to the new lands.

Comment: The name Snakes has been applied to several historic western North American Indian groups; numerous Shoshonean bands of eastern Oregon, northern Idaho, and Wyoming are referred to in the early literature as Snake Indians. More pertinent for us, however, is the fact that various Algonquian-speaking groups designate inimical Iroquoian- and Siouan-speaking tribes as "adders" or "real serpents"; hence "snake" seems to be an Algonquian metaphor for any people regarded as enemies, rather than for a particular linguistic group or tribe.

10. *Pechimuin shakowen nungihillan lusasa-
ki pikihil pokwihil akomenaki.*

Pechimuin thus escaping
 shakowen so far going
 nungihillan by trembling
 lusasaki burned land
 pikihil is torn
 pokwihil is broken
 akomenaki Snake fortified Island



III, 10. "... and they were weak and worried and trembling: tattered and torn, they went off to Snake Island."

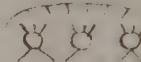
[Pechimuin (cp. Ojibwa *peeciiwii* 'he's weak'), shakowen (*sakkweeléntam* 'he's worried, troubled'), nungihillan (*nankihileew* 'he trembles'), lusasaki (*luultúwak* 'they go somewhere'), pikihil (*piikkihilee* 'it's torn in small pieces'), pokwihil (*puukwihilee* 'it's broken or torn apart in large pieces'), akomenaki (*xkúuk* 'snake' and *manáattay* 'island').]

Pictograph: The two approximations of quarter circles in this pictorial device represent two separate, hilly lands,⁴² the western (to the left)¹⁹ possessed by the Lenape,⁴³ and the one to the east,¹⁹ by the Snake tribe identified by the fanglike headdress.⁴⁴ The curved line between the two lands, crossed by the three vertical lines, tells that the road or trail⁴⁵ was beset with peril.⁴⁶

Comment: This ends the account of the second group's removal from the north.

The Ojibwa of the Great Lakes region preserve in their place names references to snakes. One of the Ojibwa bands at Mille Lacs reservation, Minnesota, is known as the Snake River band. Snake Island, near Georgian Island, Ontario, is an Ojibwa reserve of the present time.

11. Nihillapewin komelendam lowaniwi
wemiten chihillen winiaken

Nihillapewin Being free
Komelendam having no trouble
Lowaniwi Northward 
Wemiten all go out 
Chihillen Separating
Winiaken at the land of snow

III, 11. "There were still free people who were well cared for in the north: they were the next to go away from the snow country."

[Nihillapewin (*nihilaattamwéeyok* 'they are free' and *-aappe* 'person'), komelendam (cp. Ojibwa *kanaw-* 'to take care of' and Delaware *-eeləntam* 'mental attitude'), lowaniwi (*luuwanée* 'north'), wemiten chihillen (*wehencíhileew* 'he goes away from'), winiaken (*wíinee* 'it is snowing' and *-aaki* 'land').]

Pictograph: The arc and pendent lines signify snow and cold,¹⁵ in the north, while many¹ of the Lenape⁴³ are drawn with legs spread apart as in walking—traveling.⁷¹

Comment: A third group living in the north decides to depart; this leaves the Turtle group as the only one remaining on Turtle Island.

12. *Namesuagipek pokhapockhaped guneunga
waplanewa ouken waptumewi ouken*
Namesuagipek Fish report Sea +
pokhapockhaped Gaping Sea
guneunga they carry 
waplanewa White Eagle
ouken fathers
waptumewi White Wolf
ouken fathers

III, 12. "Where fish were in clear water in a hollow well by Snow Mountain, there were the fathers of Bald Eagle and White Wolf."

[Namesuagipek (*namées* 'fish' and *ooxeekpéekkat* 'clear water'), pokhapockhaped (*pohwée* 'it's hollow' and *-éppéekw* 'body of water'; cp. *poxaxóppéekw* 'hollow well'), guneunga (*kúun* 'snow' and *-aunkee* 'hill, mountain'), waplanewa (*oopp-* 'white' and *áayham* 'eagle'; cp. *ooppalánieew* 'he has white tail feathers'), ouken (*úuxo* 'his father'), waptumewi (*oopp-* 'white' and *tómeew* 'wolf, coyote'), ouken (*úuxo* 'his father').]

Pictograph: This glyph shows a fish² in a body of water,⁷⁵ a triangular mountain⁴⁸ with the outline of a wolf² upon it headed eastward¹⁹ on a curved road or trail glyph.⁵⁶ The representations of the bird² overhead and the wolf are the totem signs for the Lenape chiefs Bald Eagle and the White Wolf, although in this case they are not decorated by the usual chief's head ornament of three plumes.

Comment: Mention of the forebears of Bald Eagle and White Wolf suggests that the Fowl (Turkey) and Quadruped (Wolf) divisions of the Delaware may be referred to here.

13. Amokolen Nallahemen Agunouken
 pawsinep wapasinep ~~manóppeekw~~
 Amokolen Boating
 nallahemen navigating
 agunouken always our fathers
 pawsinep rich was
 wapasinep east was a bright
 akomene ~~manóppeekw~~ ~~island~~ land ~~land~~ was

III, 13. "And while in a boat going upstream, our fathers dreamed of Snake Island to the east."

[Amokolen (*múxuul* 'boat'), nallahemen (*nalahii* 'upstream'; cp. *manóppeekw* 'lake', but Ojibwa *maniss* 'island'), agunouken (*óok* 'and' and *núuxana* 'our father'), pawsinep (*ahooppéeyu* 'he is rich'; but cp. Ojibwa *pawaanaat* 'he dreams of him'), wapasinep (*wehencióoppank* 'east'), akomenep (*xkúuk* 'snake' and *manóppeekw* 'lake' but cp. Ojibwa *maniss* 'island').]

Pictograph: The Lenape,⁴³ in canoes,⁸ are shown approaching rolling land⁴² to the east.¹⁹

Comment: Among the Delaware, Shawnee, and especially among the Ojibwa, to mention only a few of the Algonquian-speaking tribes, dreams were of high significance, and serious attention was paid to their content. The Ojibwa, for example, advised young children to try to dream as much as possible and to make an effort to remember dreams. Children's dreams were not regarded as portentous, but the dreams of adolescents and adults held much of supernatural significance.

14. Wihlamot Richolen luchundi
 Wemamatam ~~Wemamatam~~^{Women} luchundi
 Wihlamot ... Head Beaver
 Richolen ... Big bird
 luchundi ... they saying
 Wemamatam ... all let us go
~~Wemamatam~~ ... Head Beaver



III, 14. "Head Beaver and Big Bird said to one another, 'Let us all go to Snake Island.'"

[Wihlamok (*wíil* 'his head' and *tómáakw* 'beaver'), kicholen (*kiitt-* 'big' and *cíuləms* 'bird'), luchundi (*luwahtíwak* 'they say to each other'), wemamatam (*wéemi* 'all' and *áattam* 'let's go'), akomen (*xkúuk* 'snake' and cp. *manáppéekw* 'lake', *mandáttay* 'island': only *man-* is reflected in the text), luchundi (*luwahtíwak* 'they say to each other').]

Pictograph: The line connecting the heads of the Lenape chiefs Big Bird (left-hand figure)² and Head Beaver (note beaver tail on figure to right),² is the sign for speech or conversation.⁶⁴ The three lines pointing to the east may either be direction¹⁹ or trail marks.⁶⁵ As in III, 9 and as will reoccur in III, 15, 19, and elsewhere, there are indications that the Lenape tribe was composed of three divisions.

Comment: The presence of two chiefs of equal authority for the group gathered at Snow Mountain is plainly indicated. This is consistent with the implication that the forebears of the historic Fowl and Quadruped groups were present at Snow Mountain, which appears in III, 12.

15. Witehen wemiluen wemaken nihillen

Witehen Going with
 wemiluen all saying
 wemaken all shaking
 nihillen to kill or annihilate



III, 15. "All of them said they would go together to the land there,
 all who were free . . ."

[Witehen (*wiitt-* beside *wiic-* 'with, together'; cp. *wiiccéeyok* 'the one I go with, my wife'), wemiluen (*wéemi* 'all' and *lúweew* 'he says so'), wemaken (*wéemi* 'all' and *-aakink* 'to the land'), nihillen (cp. *nihilaattamwéeyok* 'they are free').]

Pictograph: All or many¹ of the Lenape⁴³ are entering a land,⁴² a sinister⁶² land as indicated by the vertical lines. An eastern land as shown both by its position and the three direction marks to the east.¹⁹ The fanglike terminals of these further indicate evil.²²

Comment: The Northerners (that is, the Fowl and Quadruped groups), most recent migrants from Turtle Island, not only decide to move eastward themselves, but also to effect an easterly movement of all related groups. The "land there" surely refers to Snake Island, which is mentioned specifically in the preceding verse.

16. Nguttichin lowaniwi
 Ngullichin wapaniwi
 Agamunk topanpek
 Wulliton epannek
 Nguttichin — all agreed
 Lowaniwi — Northlings
 Wapaniwi — Eastlings
 Agamunk over water
 Topanpek frozen sea
 Wulliton to post
 Epannek they went



III, 16. ". . . the Northerners were of one mind and the Easterners were of one mind: it would be good to live on the other side of the frozen water."

[Nguttichin (*kw̄itti* 'one', but cp. Ojibwa *ninko-* 'one'; Delaware *-iitteehee-* 'to have a heart, mind'), lowaniwi (*luuwanée* 'north'), Nguttichin (Ojibwa *ninko-* 'one' and Delaware *-iitteehee-* 'to have heart, mind'), wapaniwi (*wehencióoppank* 'east'), Agamunk (*kaamík* 'across the water'), topanpek (*kpáttan* 'it freezes over' and *-oppeekw* 'body of water'), Wulliton (*wal̄t̄t̄nu* 'it's good'), epannek (cp. *éppiit* 'where he stays').]

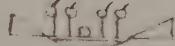
Pictograph: Lands on both sides of a body of water,⁷⁵ presumably the sea, are shown in this symbol.⁷⁶ The double line for the surface of the water suggests ice.⁷⁶ The northern¹⁹ Lenape⁴³ are represented by the circle and decorations at the top while their eastern¹⁹ brothers are shown by the same glyph to the right. The lines connecting them reveal a bond of close relationship or purpose.⁵

Comment: The Easterners, or harassed group which separated from the parent body to go to Snake Island but which apparently did not reach its objective, is here reported to be in accord with the Northerners' plan.

Since there are no large lakes in northeastern Asia, where the ancestors of the present-day Delaware may have been at this time, the "frozen water" which the groups propose to cross may refer to Bering Strait. If this reference is to Bering Strait, we must assume a relatively great antiquity; so great, indeed, that the whole account must antedate linguistic differentiation into Delaware, Ojibwa, Shawnee, and other recent and present-day Algonquian languages. Our perspective would necessarily be changed; in place of a specific Delaware tradition (as suggested in III, 1), we should have to assume a migrational account of generalized Algonquian groups, preceding the differentiation into Delaware, Ojibwa, Shawnee, and other tribes. This pre-differentiated Algonquian might have had prototypes of Quadruped, Fowl, and other political groups, since reflexes of such groups are found not only among the Delaware, but also among the Shawnee and many other historic Algonquian tribes.

The Delaware may have alone preserved the account of this early Algonquian migration and, incidentally, taken full credit for it. In explaining why the Shawnee and so many other Algonquian tribes refer to the Delaware as "Grandfathers," a Shawnee informant stated that it is "because the Delaware tell the most wonderful stories; they are able to tell stories better than any other tribe."

Although differentiation into the present-day Algonquian tribal groups had not as yet taken place, it is of interest to note that already, in this remote period in the past, at least two related groups were in existence. Some indication has already been given as to why the eastern group separated from the main body. The fact that such separations have occurred in the past is also generally noted in the folklore of present-day Algonquian peoples, and a rationalization for these separations is usually provided in tales concerning tribal splits. The Shawnee, for example, account for their separation from their close linguistic relatives, the Kickapoo, as due to a hunters' quarrel over the division of some roasted bears' paws; the Kickapoo recount essentially the same tale, but lay the onus of blame for the incident leading to the separation, on the Shawnee.

17. Wuleleml W'shakuppek
 Wemopannek hakhsinipek
 Kitahikan pokhakhopek
 Wuleleml Wonderful
 W'shakuppek Smooth deep water
 Wemopannek all went 
 hakhsinipek unhard stone like
 Kitahikan of Great Ocean
 pokhakhopek at gopher snake sea

III, 17. "Things turned out well for all those who had stayed at the shore of water frozen hard as rocks, and for those at the great hollow well."

[Wuleleml (*wəlēeləma* 'he has things turn out well for him'), w'shakuppek (*ʃóhpe* 'shore near water'), Wemopannek (*wéemi* 'all' and cp. *éeppiit* 'where he stays'), hakhsinipek (*ahsón* 'stone'), and *-əppeekw* 'body of water'), Kitahikan (*kiittahííkkan* 'something which is very big'), pokhakhopek (*poxaxóppeekw* 'hollow well?').]

Pictograph: Here we have a repetition of the frozen ocean⁷⁵ showing opposite coasts.⁷⁶ The circle upon the ice⁷⁷ may represent children or dogs. All or many¹ of the tribe⁴³ seem to be crossing over the ice.

Comment: It would appear from this verse that the Northerners, before their successful passage over the frozen water, had been encamped some distance away from the shore, whereas the Easterners had reached the shore when the decision of the two groups was made to proceed eastward to Snake Island.

18. Tellenchen kittapakki nillawi
 Wemoltin ~~kwetigutikuni~~ nillawi
 Akomen wapanakki nillawi ponskan
 Tellenchen kittapakki 10,000 (Vonikan-
 Wemoltin all go forth Olini.
 gutikuni - single night mu mu
 Akomen Snake Island L
 Wapanakki Eastern Land u
 nillawi by night & in the dark
 ponskan ponskan much walking
 wemiwi - all they
 olini the Men or people

III, 18. "Ten thousand men went upstream, went right on upstream during a single day, upstream to the eastern lands of Snake Island: every man kept going along."

[Tellenchen kittapakki (*teləntxantentxáapxki* 'ten thousand'), nillawi (*nalahii* 'upstream'), Wemoltin (*wéemi* 'all', and cp. *illuuxwéeyank* 'we'll be going right on'), gutikuni (*kwottíukkwmi* 'one day or night'), nillawi (*nalahii* 'upstream'), Akomen (*xkíuk* 'snake' and cp. *manáppéekw* 'lake', *manáattay* 'island'), wapanakki (*wehencíóppank* 'east' and *-aaki* 'land'), nillawi (*nalahii* 'upstream'), Ponskan, ponskan (*pəmáskeew* 'he goes along'), wemiwi (*wéemi* 'all'), olini (*l̄nu* 'man').]

Pictograph: The upper glyph, judging from the text, must mean that each vertical line represents a thousand men and the three semicircles below the ground line³¹ bodies of water,⁷⁵ the several reaches of a stream. The lower figure shows the frozen³⁶ ocean and both coasts.⁷⁶ The two vertical lines on either side of the central glyph should indicate difficulty or trouble¹⁸ for some in the crossing, while the central figure may either stand for the Lenape or a day (meaning year).¹⁶

Comment: If the “frozen water” refers to Bering Strait, the first large river encountered east of Bering Strait would be the Yukon. In its middle course the Yukon flows in a southwesterly direction; travel upstream would thus lead toward the east, into the interior of Alaska.

The “single day” mentioned in this verse refers in all likelihood to a single year. In Shawnee mythology, as in that of many other American Indian tribes, the space of time encompassed by one year is often referred to as “one day,” especially when the speaker is a supernatural being or a deity. The Shawnee female Creator, for example, tells the human beings she has created, that she will return to them in one day when she means in one year; in another myth, the Shawnee are told to be at the entrance to an underground realm at the end of “four days,” and because they obey instructions literally, instead of waiting four years, the passageway does not open for them.

The number of persons migrating seems at first glance exaggeratedly high; however, if “a single day” is accepted as meaning a single year, and if it is also borne in mind that the whole body of the Algonquian-speaking people, and not a single tribe, was probably on the move, the number mentioned does not loom large. The population of the Algonquians in late aboriginal times has been estimated at about 185,000 persons; not only did speakers of the Algonquian languages occupy a large portion of North America, but their numbers account for almost one fifth of the total population of native North America. At the present time, despite the fact that many Algonquian tribes are now totally extinct, there are about 40,000 Algonquian-speaking persons in the United States, and about 50,000 in Canada.

19. Lowanapi, Wapanapi, Shawanapi.	
Lanewapi tamakwapi tumewapi	
Elowapi, Powatapi, Wilawapi	
Okwapisi, demapisi, allumapi	
Lowanapi - north men	
Wapanapi - eastern men	III
Shawanapi - southern men	III
Lanewapi - eagle men	III
tamakwapi - Beaver men	
tumewapi - Wolf men	
Elowapi - Bear or hunting men	
Powatapi - Head men	
Wilawapi - Rich men	
Okwapisi - with wives or wives of man	g. 14
demapisi - daughters of man	g. 16
allumapi - in with dogs of man	Family

III, 19. "The North Delaware, the East Delaware, the South Delaware; and the Eagle Delaware, the Beaver Delaware, the Wolf Delaware; and the hunting men, the shamans, the headmen; and Delaware women, Delaware daughters, Delaware dogs . . ."

[Lowanapi (*luuwanée* 'north' and *-aappe* 'person,' usually 'person of Delaware tribe'), wapanapi (*wehenciooppank* 'east' and *-aappe* 'person'), shawanapi (*šaawanéw* 'south' and *-aappe* 'person'), Lanewapi (*ayhamuáapte* 'the Eagle Delaware'; cp. *áayham* 'eagle,' *-alániuw* 'to have tail feathers'), tamakwapi (*tomaakkwáapte* 'the Beaver Delaware'), tumewapi (*tmewuáapte* 'the Wolf Delaware'), Elowapi (*alaíw* 'he hunts' and *-aappe* 'person'), powatapi (*paoottáapte*

‘shaman’), wilawapi (*wíil* ‘his head’ and *-aap̥pe* ‘person’), Okwisapi (*xkwéew* ‘woman’ and *-aap̥pe* ‘person’), danisapi (cp. *ntáan* ‘my daughter’ and *-aap̥pe* ‘person’), allumapi (cp. *ntáləmuuns* ‘my dog’ and *-aap̥pe* ‘person’).]

Pictograph: This is a most difficult pictograph to interpret and its four separate elements seem to be arranged in a clockwise order. Upper left, reading from left to right: the south¹⁹ Lenape,⁴³ the north Lenape, the east Lenape. Upper right: the Wolf clan (ears), the Beaver clan, the Eagle clan (outspread wings). Lower right: the hunters (children more likely),¹⁰ shamans,⁶¹ headmen. Lower left: dogs, women, daughters.

Comment: This verse makes explicit the fact that the “ten thousand men” of III, 18 refers to ten thousand human beings—men, women, and children. Mention of the Eagle, Beaver, and Wolf Delaware may refer to unilateral groupings which were even then existent among the Algonquians. If this latter point could be established, it would be significant as evidence for the diffusion of unilateral groupings from the Old to the New World, and the possible single origin of all such groupings.

Stylistically this verse is extremely interesting as an example of the North American Indian use of parallel construction as a literary device. First, three groups of “Delaware” (undifferentiated Algonquians?) are listed, according to areal grouping; then three other groups are mentioned, according to possible clan affiliation; then three others are specified, according to occupation or status; finally, the verse concludes with mention of another trio—women, daughters, and dogs—all three, perhaps, considered as dependents of man! To fulfill stylistic requirements, one possibly important occupational group of men was omitted, namely, the warriors. The omission of this particular group may be significant, however, as indicating that the Algonquians were not, at this early period, a group which set a high value on achieving distinction through war.

The inclusion of a specific reference to dogs in the verse under discussion is of particular interest also. The dog is the one domesticated animal which was widely distributed among New World tribes in prehistoric times. Because all dogs seem to have had a common origin, with the center for their dispersal in Asia, it is generally believed that the early migrants into America brought the dog with them from their Old World homes.

20. Wemipayat gunéunga Shinaking
 Wunkanapi chanelendam payaking
 Allowelendam kowiyey tulpaking
 Wemipayat all coming
 gunéunga they carry 
 Shinaking at Sireland
 Wunkanapi Western man
 chanelendam doubting
 payaking coming at
 Allowelendam preferring above all
 kowiyey tulpaking Old turtleland at.

III, 20. ". . . all came from Snow Mountain and the forest country; the West Delaware came out of humor, for they preferred the old Turtle land."

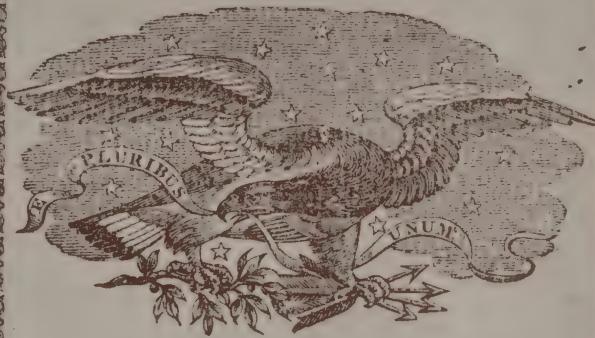
[Wemipayat (*wéemi* 'all' and *pecihileew* 'he comes'), gunéunga (*kúun* 'snow' and *-aunkee* 'hill, mountain'), shinaking (cp. Delaware *šinkee* 'forest', Ojibwa *šinkop* 'balsam pine'; and *-aakink* 'to the land'), Wunkanapi (*eheliwsíikaak* 'west' and *-aappe* 'person'), chanelendam (*caneeléntam* 'he is out of humor'), payaking (cp. *pecihileew* 'he comes'), Allowelendam (*ahálowi* 'more so, most' and *-eeléntam* 'mental attitude'), kowiyey (*xówi* 'old'), tulpaking (*-tíulpi* 'turtle' and *-aakink* 'on the land').]

Pictograph: Two rolling lands are here represented,⁴² the one to the west that of the west Lenape⁴³ and another land, a forest²⁶ land to the east.¹⁹

Comment: The West Delaware are presumably those individuals who stayed at Turtle Island throughout the period when various groups (the hunters, the harassed Easterners, and the Northerners) were removing from the Island. The fate of the hunters after they dispersed north, east, south, and west (as recounted in III, 6) is not stated; the majority of the Delaware, however, are reunited into one large body as they enter upon a major migrational movement into a new land.

WALAM OLUM

Book IV



THE PROPERTY OF
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Walamolum II. 124 glyptis
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Wállam Olum

First & Second Parts of the
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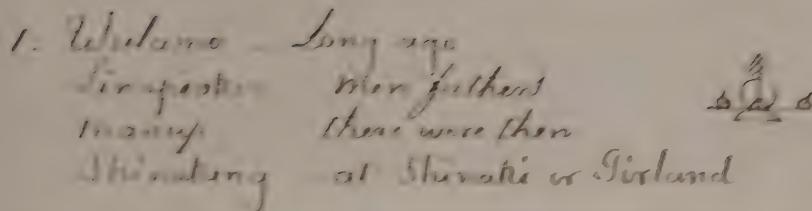
II Part

Historical chronicles or Annals
in two chronicles

1. from arrival in America to settlement
in Ohio & 4 chapters, each of 16
Verses, each of 4 words. 64 Signs

2d From Ohio to Atlantic States &
back to Missouri, a mere succession of
names in 3 chapters of 20 Verses 60 Signs
translated word for word by means of Zeisberg
and Linapi Dictionary. with explanation
By C. S. Rafinesque 1833.

... in my opinion the best method
is to keep you with the horses
in the stable, and not if
possible, keep you away from the horses
in the stable. If you do this
you will be safe, and you will
not be disturbed by the horses
when you are trying to sleep.
Good night.



IV, 1. "Long ago people like the Delaware were in a forest by a lake."

[Wulazno (Wiemme 'long ago'), linapinchen (lmaappayinkhan 'Delaware-like, having the quality of the Delaware tribe'), manipukku (manippaku 'lake'), manipukku (minku 'forest').]

Pictograph: The large circle is the idograph for long ago.¹⁴ The small circles with central dots and single feathers represent the hallowed¹⁵ ancestors of the Lenape.¹⁶ Forest¹⁷ land is indicated by the tree surmounting the semicircle, a glyph for land,¹⁸ and the small triangle implies that all was peaceful and pleasant.¹⁹

Comment: The majority of the Algonquians, including the Delaware, were "woods Indians," as a Shawnee informant expressed it, with a culture attuned to a woodlands type of life. This forest-and-lake existence is best typified today in the culture of the Algonquian-speaking Ojibwa, Ottawa, Montagnais, and Naskapi groups.

2. Wapallanewa - White Eagle
 Sittamaganat - Path Leader
 Yukepechi - till here
 Wemima - all is there



IV, 2. "Bald Eagle was the one traveling along a road, and all those others, too . . ."

[Wapallanewa (*ooppaláne* 'bald eagle'; cp. plural form, *ooppalanéeyok*, with underlying final *w* which appears as *o* before *k*), sittamaganat (*tómáakkan* 'road'; cp. Ojibwa *mííkkan* 'road'), yukepechi (*yúuki* 'those' and *peecíhileew* 'he comes'; cp. Ojibwa *peecíiwi* 'he is weak'), wemima (*wéemi* 'all').]

Pictograph: The bird² is Bald Eagle's device while the curved line represents a trail or road⁵⁶ leading to the east,¹⁹ with the Lenape, the small circle adorned with one feather,⁴³ upon the trail.

The numbers at the right in the pictographs from this point on are Rafinesque's tally of the chiefs as they are mentioned.

Comment: The forest was apparently merely a temporary stopping place on this major migration of the group under its leader, Bald Eagle. Such temporary halts would be made whenever hunting or fishing proved good in a certain locality; unless pressed by enemies, large groups would move slowly, with frequent stops in favorable localities.

3.	Akhomenis	Snake Land island
	michihaki	big land
	wellaki	fine land
	kundukanup	Searching when

IV, 3. "... toward Snake Island, a vast country, a good land, where cold winds never blow."

[Akhomenis (*xkúuk* 'snake' and *manáattay* 'island'; cp. Ojibwa *maniss* 'island'), michihaki (*maxáaki* beside *meexinkhókke* 'big land': *max-* 'big', *hákki* beside *-aaki* 'land'; cp. Ojibwa *mišši-* 'big'), wellaki (*wəl-* 'good' and *-aaki* 'land'), kundukanup (*kuun-ii-* 'not, never' and *táxan* 'it blows cold').]

Pictograph: Land⁴² is symbolized by the curve resting upon the base line.³¹ That it is Snake Land is suggested by the fanglike glyphs at the sides of the figure.⁶³ Vegetation is portrayed by the short lines upon the surface of the land.⁷²

Comment: The Shoshonean tribes persistently referred to as "Snakes" in early sources were located south of British Columbia and Alberta, in eastern Oregon, northern Idaho, and Wyoming.

The world in general is also known as an island, and hence "island" can be used metaphorically for "land."

4 Angumelchik the friends or friendly ones
 Eluwichik the hunters
 Elmusichik the guests
 Menatting in assembly met

IV, 4. "The hunters who died went west to an island."

[Angumelchik (*angəlúnka* 'they died'), eluwichik (*ehalaéecciik* 'hunters'), elmusichik (*aləmskéeyok* 'they go'; cp. *eheliwsíikaak* 'west'), menatting (*manáattay* 'island').]

Pictograph: The circle surrounding the three-feathered emblems of the Lenape,⁴³ conveys the idea that they have been killed or are dead.⁴⁰ The small triangle, in this instance, represents an island,⁴¹ the pleasant abode of the dead.

Comment: Belief that the dead go upward or across a body of water to an island abode is extremely widespread among North American Indian tribes. Many tribes, including the Delaware and Shawnee, also hold that the land of the dead is located in the west, and native explanations of the east-west orientation of bodies in the grave refer to the location of the land of the dead as the reason for the orientation. Among some eastern tribes there is segregation among the dead, warriors and hunters going to a separate abode where their time is spent in continual feasting and dancing.

5. Wemilo all say to him
 Kolawil beautiful head or Kolawil
 Sakima King
 Lissilma Be thou there



IV, 5. "All the others said to Fine Old Head, the chief who was about to leave, . . ."

[Wemilo (*wéemi* 'all' and *lúweew* 'he says so'), kolawil (*xówi* 'old' and *wəl-* 'good' and *wíil* 'his head'; cp. *wəlántpeew* 'he has a fine head'), sakima (*saakkíima* 'chief'), lissilma (*ika-liciéew* 'he went away').]

Pictograph: Lenape chiefs are usually distinguished by a three-feathered head-dress, the center line being longer than the other two. In most cases these three feathers are made of single lines but apparently with the more important chiefs, as in this instance, the head ornamentation is made more elaborate.²⁴ The square bodies of many of the chiefs imply greatness.²⁵ The small triangle in the above figure indicates peace and pleasant circumstances.²⁶

Comment: "All the others" probably refers to a body of councilors whose duty it was to advise their chief before any major action was taken by the latter. Personal names which refer to the bearer's qualities or personal appearance are used to some extent by the Delaware.

3. Akhopayat. Snake coming
 Kihillalend. Thou killst some
 Akhopokhu. Snake hill
 askiwaal. They must go.

IV, 6. "... 'When the Snakes come, you kill them'; then the Delaware started toward Snake Hollow."

[Akhupayat (*xkíuk* 'snake' and *páat* 'he comes'), kihillalend (*kmíhila* 'you kill him'; cp. *nníhila* 'I kill him'); akhopokhu (*xkíuk* 'snake' and *pohwée* 'it is hollow'); askiwaal (*ask-* 'fresh, new', as in *askéeyok* 'fresh meat'; and *-ihileew* 'to move', as in *peecihileew* 'he comes').]

Pictograph: The Snakes (fanglike headdress)⁶³ are pictured traveling⁷¹ over lands.⁴² The "hollow" referred to in the text may be the space between the two land glyphs.

Comment: The advice given by the councilors is to meet the enemy Snakes and kill them, as the forebears of the Delaware, at the time of Fine Old Head, push steadily southward.

7. Showihilla weak
 akhowemi Snake all
 gandhaton concealing or hiding themselves
 mashkipukhing Bear hills at



IV, 7. "The Snakes became weak and hid in prairie hollows."

[Showihilla (šáhilee 'he becomes weak'), akhowemi (xkúuk 'snake' and wéemi 'all'), gandhaton (cp. nkanthátuun 'I hide it'), mashkipukhing (cp. makškkee 'prairie' and Ojibwa maškotee 'prairie'; and pohwée 'it is hollow').]

Pictograph: In this figure the Snake⁶³ sign is placed below the small triangle²⁸ disclosing the fact that they were "dead" to or separated from peace and friendship. The idea of their being in hiding,³³ or rendered invisible by supernatural power, is conveyed by their place within the large triangle.

Comment: This weakening of the enemy probably refers to the successful practice of supernatural measures against the Snakes by powerful persons among the migrants. The Shawnee of the present day tell of instance after instance when their enemies were overcome by warriors gifted with many sorts of supernatural power or supernatural knowledge. Such gifted warriors might "poison" the enemy from a distance, or magically encircle him with a woven halter; many warriors could take the form of small insects and thus be immune to harm from the enemy. In connection with the latter practice, it is interesting to note that the Shawnee claim the Delaware warriors could only transform themselves into large animals (from whom they had received supernatural blessings) and that, therefore, on more than one occasion the Delaware were in danger of being defeated by their foes and were compelled to call upon the Shawnee for aid.

8 Wtenkolawil *after Kolawil*
 Shinaking *Forest at*
 Sakimanep *King was*
 Wapagukhos *White Owl*



3

IV, 8. "After Fine Old Head, White Owl was chief at the forest land."

[Wtenkolawil (*wtéñk* 'after' and *xówi* 'old' and *wəl-* 'good' and *wíil* 'his head'), shinaking (*šínkee* 'forest'; cp. *hákki* beside *-aaki* 'land'), sakimanep (*saakkiima* 'chief'), wapagukhos (*oopp-* 'white' and *kúukhuus* 'owl').]

Pictograph: The tree image typifies the forest.²⁶ The figure of the owl² with spread wings is the totem sign for Chief White Owl of the Lenape.⁴⁴

Comment: The woodlands environment again receives specific mention. The name of the chief, White Owl, suggests that the faunal environment known to the forebears of the Delaware was still a northern one.

q. *Wtennekama* - After him there
sakimanep - King was
janotowi - Bride master (of men)
enolowin - things who.



1.

IV, 9. "After him there was a handsome chief, Young Man Horned Owl."

[*Wtennekama* (*wténk* 'after' and *ninkam-* 'pretty', as in *ninkamiináakwsu* 'he looks pretty'), *sakimanep* (*saakkíima* 'chief'), *janotowi* (*skinnu* 'young man' and *-tuhweeppi* 'body'; cp. *wtuhwéeppi* 'his body'), *enotowin* [*enolowin?*] (*ohúntamu* 'horned owl'; cp. *avéeniih* 'persons').]

Pictograph: There seems to be no revelation of characteristics in this chief's emblem further than that he is armed.⁷⁸

Comment: The personal name of this chief, again, is one which is of the same general type as those current among the historic Delaware.

10. *Wtenknekama Sakimanep*

Chilili — Snowbird

Shawaniluen — South he saying



5

IV, 10. "After him the handsome chief, Bird, spoke in favor of the south: . . ."

[Wtenknekama (*wténk* 'after' and *ninkam-* 'pretty'), sakimanep (*saakkíima* 'chief'), chilili (*ciúləəns* 'bird'), shawaniluen (*šaawanéew* 'south' and *lúweew* 'he says so').]

Pictograph: The snow and cold glyph¹⁵ delineates the north. The position of the sign of Chief Bird² (headed toward the bottom of the page) indicates an involvement with the south.¹⁹

Comment: Having previously tested their strength against their enemies in the south, the chief now proposes that the group as a whole move southward. This would be a normal procedure among the historic Delaware, or the Shawnee; a chief, addressing his body of councilors or even his people as a whole, lays his plans before them. The proposals are then discussed, pro and con, by the councilors; the chief cannot force the acceptance of any plans he has made, but can only speak in favor of them.

11 Wokenapi ... *Gathers men*
 Nitaton ... *to be able*
 Wullaton *to possess*
 Apakchikton *Spreading*



IV, 11. "... 'It would be good to instruct the western men to go over there to the west' . . ."

[Wokenapi (*eheliwsíikkaak* 'west' and *-aappe* 'person'), nitatum (cp. *kəniitántalaan* héč 'did you teach him?'), wullaton (cp. *wəlaatéenamu* 'he is happy, a good God', *wəláatuun* 'he puts it away', *wolóttmu* 'it is good'), apakchikton (*áapci* 'every time'; and some one of several possible suffixes for 'going, walking').]

Pictograph: This figure seems to mean that the Lenape⁴³ in their southward journey (below the ground line),³¹ first separated into two bodies, one traveling toward the west and the other toward the east.¹⁹

Comment: Evidently, even though temporarily united in the north, the people were divided into several factions with one group in favor of a western, rather than a southern movement. This group disunity is highly characteristic of other Algonquian tribes; for example, the historic Potawatomi or the Shawnee. The whole history of the Shawnee, at least during post-Columbian times, is one of segments of the tribe moving away from each other, east, west, north, or south. The ideal of "all the Shawnee" combining to live in one locality has remained only an ideal voiced by certain Shawnee leaders. Even today, despite all historic precedents to the contrary, the leaders speak hopefully of unification.

12. Shawaniwaen South he goes
 Chilili Snowbird
 Wapaniwaen East he goes
 Tamakwi Beaver He



IV, 12. "... 'and for Bird to be a southern person, and for Beaver to be an eastern person' . . ."

[Shawaniwaen (šaawanéew 'south' and awéen 'person'), chilili (cíuləns 'bird'), wapaniwaen (wehencióoppank 'east' and awéen 'person'), tamakwi (təmáakw 'beaver').]

Pictograph: The bird glyph (with wings and tail feathers)² is pictured to the south,¹⁹ while the beaver (identifiable by beaver-shaped tail)² is to the east.

Comment: Bird, the dominant leader, presses for a southerly movement of his people. The reference to a third, an eastern group in this verse is of interest. Three is not the Delaware ritual number; however, references to three early groups occur in other native accounts of Delaware history beside the Walam Olum, and the historic Delaware tribe is said to have been composed of three sub-groups, each sub-group being associated with a bird or animal species.

13. *Akolaki* ... Beautiful land
Shawanaki ... south land
Kitshinaki ... big island
Shabiyaki ... shore land



IV, 13. "... 'in the Snake Land, the southern land, the great land which extends along the shore' . . ."

[Akolaki (*xkíuk* 'snake' and *-aaki* 'land'), shawanaki (*šaawanéew* 'south' and *-aaki* 'land'), kitshinaki (*kicíi-* 'big' and *-aaki* 'land'), shabiyaki (*šóxpenk* 'on the shore').]

Pictograph: The three elements of this ideogram are now familiar, from left to right, or from west to east:¹⁹ a body of water,⁷⁵ land⁴² (the coast symbol),¹⁴ and forest.²⁰

Comment: This region is, relatively speaking, near the west coast of North America.

14. Wapanaki ... Eastern land
 Námesaki ... Fish Land
 pemapaki ... Lake Land
 Sisilaki ... Cattle Land



IV, 14. "... 'and in the Eastern Land, the fish land, beside a body of water far from the buffalo country.' "

[Wapanaki (*wehencióoppank* 'east' and *-aaki* 'land'), namesaki (*namées* 'fish' and *-aaki* 'land'), pemapaki (*pəm-* 'along' and *-əppeekw* 'body of water'), sisilaki (*siisiiliéyok* 'buffalo' and *-aaki* 'land').]

Pictograph: The angle opening toward the right and the fish² facing in the same direction probably indicate the east¹⁹ in this figure. Emblems for two bodies of water⁷⁵ appear and the three short, vertical marks probably indicate the north.

Comment: The Eastern Land or fish land might be Great Lakes region, east of the plains or "buffalo country." Although in pre-Columbian times the buffalo ranged well into the woodlands, their characteristic habitat was in the plains.

15. *Wtenkchilili* - after Chilili

Sakimanep - King was
Ayamek - the great warrior
Weminilluk - all warred



IV, 15. "After Bird, Fish was chief: all were killed . . ."

[*Wtenkchilili* (*wténk* 'after' and *cíuləns* 'bird'), *sakimanep* (*saakkima* 'chief'), *ayamek* (-*ameekw* 'fish, serpent of a certain kind', as in *amánkameekw* 'big fish'), *weminilluk* (*wéemi* 'all' and *nníhila* 'I kill him').]

Pictograph: This pictograph exhibits a Lenape chief⁴⁴ with weapons in his up-raised hands,⁷⁸ indicating violence and spread legs showing movement.⁷¹

Comment: This is a type of exaggerated statement which is also to be found in early historical accounts such as the *Jesuit Relations*. Since much of the early source material is based on information derived from native informants, this sort of exaggeration seems fairly typical of native statements concerning successful raids.

16. Chikunapi	Rolling men	
Akhunapi	Snaking men	
Makatapi	Blackding men	
Assinapi	Stony men	

IV, 16. ". . . the Shamans, the Snakes, the Blacks, and the Stonies."

[Chikunapi (cp. Ojibwa *ciissaakkii* 'shaman' and *-aappe* 'person'), akhunapi (*xkūuk* 'snake' and *-aappe* 'person'), makatapi (*-aappe* 'person' preceded by Ojibwa *makkatee* 'black'; cp. Delaware *səkkáappe* 'black person, negro'), assinapi (*ahsín* 'stone' and *-aappe* 'person').]

Pictograph: The only certain component of this figure is that with the fanglike headdress standing for the Snake tribe.⁶⁰ Both of the tribal symbols on the right might represent the Shamans, for both the dot⁶¹ and the two-lined stripe across the body⁶² have been used to denote supernatural properties. The upper right and lower left tribal glyphs do not occur elsewhere in the Walam Olum.

Then too, what is to be made of the lines joining these symbols? They might all represent bonds of relationship,⁶³ or the diagonal X might stand for war,⁶⁴ and the horizontal lines mean relationships. Or do these lines indicate the order in listing the tribes?

Comment: These names are suggestive of northern plains tribes such as the Wind River Shoshone (Wyoming), the Blackfoot (Alberta and northern Montana), and the Assiniboine or "Stonies" (Alberta).

17.	Wenkayamek	After Ayamek
	Tellensakimek	Ten Chiefs 
	Machinanup	much war then
	Shawapama	South & east there

IV, 17. "After Fish, Ten Chiefs looked for evil events in the south."

[Wenkayamek (*wéñk* 'after' and *-ayamek* 'fish'), tellensakimek (*teñk* 'ten' and *sakimek* 'chief' with plural suffix *-ek*), machinanup (*máñkutum* 'it is made bad'; cp. *máñkutum* 'I fixed it in a bad way'), shawapama (*šawapam* 'south' and *-apam-* 'to look').]

Pictograph: The slanting marks above the ground line¹⁶ of this figure evidently mean something in connection with the number ten, but since the use is unique in the Walam Olum the meaning cannot be settled without a reference to the text. The three X's below the ground line indicate "much war¹⁷ to the south," although the war glyph (probably indicating death) is almost always placed below a base line—most often without having any directional significance.

From Rafinesque's tally of chiefs at the right of the pictographs we see that he counts "Ten Chiefs" as ten chiefs and at this point marks up sixteen chiefs.

Comment: The northern location of the group is again emphasized.

From this point on in Song IV a succession of chiefs are enumerated. Such a listing appears at first glance as highly atypical for a native eastern North American document. However, there is evidence that various Indian tribes living in the eastern half of the continent were concerned with the preservation of genealogical records. The Natchez, for example, are said to have been able to count "45 or 50 chiefs who . . . succeeded each other successively." The Iroquois kept long genealogies of those maternal families among them which possessed the titles to chieftainship.

18. *Wtenknellamawa after them*

Sakimanep - King was

Langundowi Peaceful he

Akolaking - At beautiful land



IV, 18. "After him, Peaceful One was chief while they went to Snake Land."

[Wtenknellamawa (*wtéñk* 'after' and *nédi* 'while, when'; cp. *áattam* 'let us go'), sakimanep (*saakkima* 'chief'), Langundowi (cp. *wəlankuntuwāakkan* 'friendship', *wəlankúntuwak* 'they keep peace with each other'), akolaking (*xkiáuk* 'snake' and *-aaki* 'land').]

Pictograph: This is a symbol of a great²⁹ Lenape chief⁴⁴ in some flat land.⁴¹ The small triangle denotes peace and friendliness.²⁸

Comment: The juxtaposition of references to the south (verse 17) and to Snake Land would indicate that the Delaware were still north of certain enemy groups into whose territories they were later to move.

19.	Wtén. ninkama	after him	
	Sakimanep.		
	Tasukamend.	Never black or bad	18
	Shakagapipi.	a just man he was	

IV, 19. "After him, there was a handsome chief, One Without Black Magic, who was an upright person."

[Wtennekama (*wténk* 'after' and *ninkam-* 'pretty'), sakimanep (*saakküima* 'chief'), tasukamend (*ta-* negative and *síkkee* 'it is black' beside *síksu* 'he is black' and *manštu* 'spirit, magic'), shakagapipi (*šavahkšu* 'he is straight' and *-aappee-y-* 'nature of a person').]

Pictograph: Another great²⁹ Lenape chief,⁴⁴ his dwelling or village²¹ appearing to the right.

Comment: The name of this chief suggests the presence of evil shamanistic practices at an early date. A modern Delaware tale attributes the origin of Delaware witchcraft and the administration of poisons to the Nanticoke, a neighboring Algonquian-speaking group.

20. *Wtenknekama**Sakimanep**Pemaholend* - Constantly Beloved*Wulitowin* - Good who (did)

19

IV, 20. "After him, there was a handsome chief, One Who Likes Virtue."

[*Wtenknekama* (*wténk* 'after' and *ninkam-* 'pretty'), *sakimanep* (*saakkíima* 'chief'), *pemaholend* (*pəm-* 'along' and cp. *ntahóola* 'I like him', *ahoolkwósu* 'he is liked generally'), *wulitowin* (*wəlóttənu* 'it is good').]

Pictograph: The small circle in this sign for a Lenape chief⁴⁴ indicates bravery.⁶

Comment: All of the chief's names, including the one above, are of the same general type as names used by the historic Delaware. Heckewelder lists as typical Delaware personal names the following: Beaver, Otter, Sun-fish, Black-fish, Rattlesnake, etc., The Beloved Lover, Met By Love, Make Daylight Appear, The Carrier of Turkeys, Bad Shoes. Speck translates the names of living Delaware informants, thus: Walking With Daylight or Walks By Daylight, War Eagle, Elk-hair, Rustling Leaves (when walking), Walking In Advance or Leader.

24.	Sagimawtenk	King after'	
	Matemik	builder of towns	20
	Sagimawtenk	King after	
	Pilsohalin	Holy over	21

IV, 21. "The chief after him was One Who Is Not Red, and the next chief was One Who Likes Cleanliness."

[Sagimawtenk (*saakkiima* 'chief' and *wtéenk* 'after'), matemik (*máttá* negative, and *maxk-* 'red', as in *máxksu* 'he is red'), sagimawtenk (*saakkiima* 'chief' and *wtéenk* 'after'), pilsohalin (*píulsu* 'he is clean' and *ahool-* 'to like').]

Pictograph: The chief's glyph to the left represents "One Who Is Not Red"—not a warrior but a village chief⁴⁴ as indicated by the square dwelling signs²¹ on either side, and based upon a land glyph.⁴¹

The other shows that the Lenape chief had trouble (the two vertical lines)¹⁸ upon the trail (the curved line).⁵⁶ This meaning is not borne out by the text and the curved line has a more acute bend than the usual trail glyph. It is the only case in this work where a glyph exactly like it exists.

Comment: The negative quality of certain of the chiefs' names (verses 19 and 21) is of interest and has seldom been noted previously for the Delaware. Also of interest is the fact that in verses 20 and 21 personal names have reference to two Delaware ideals, virtue and cleanliness. The latter may refer to physical cleanliness, which the modern Delaware value, or to ritual qualifications. A "clean" man in the latter sense is one who has avoided all contacts, either direct or indirect, with women during or immediately after their menstrual periods.

22. *Sagimawtenk*
Gunokeni Longwhile fatherly 22
Sagimawtenk
Mangipitak Big teeth. 23

IV, 22. "The chief after him was One Who Lies Extended, and the next chief was Big Teeth."

[Sagimawtenk (*saakkíima* 'chief' and *wiéñk* 'after'), gunokeni (*konéexiin* 'he lies extended': *kon-* 'long', *-eex-iin-* 'to be at rest'; cp. *kíun* 'snow'), sakimawtenk (*saakkíima* 'chief' and *wténk* 'after'), mangipitak (*amánkek* 'things which are big' and *-iippíitta* 'teeth').]

Pictograph: The emblem of the Lenape chief⁴⁴ to the left is indecipherable at present, the elements of the figure being unique in the Walam Olum. In the one to the right, does not the attachment to the chief resemble a deer mandible containing teeth?

Comment: None.

23. *Sagimawtenk*

Olumapi . . . *Bundler (of written sticks)* . . .
 Leksahowen *Writing who* 
 Sohalawak . . . *he causes them*

IV, 23. "The chief after him was Red Paint Person, the one who originated drawing."

[*Sagimawtenk* (*saakkíima* 'chief' and *wiéñk* 'after'), *olumapi* (*ooláman* 'Indian paint, red paint'; cp. *oolamánni* 'Delaware clan', *óolaham* 'paint dish'; whichever prior element is intended, the suffix is *-aappe* 'person'), *leksahowen* (*eheleekhiik-kees* 'writer'; cp. *leekhúikkeew* 'he writes, makes pictures'), *sohalawak* (*kwíišeelón-tamən* 'he creates it').]

Pictograph: Compare the Lenape chief's⁴⁴ glyph with that in Book V, verse 5. They are essentially alike. In both cases drawing or records are mentioned in the text, so it is evident that such pictographic records as those of the Walam Olum are probably represented. They resemble an old Chinese pictograph portraying an ancient book written on laths of bamboo and tied together. See Wieger, *Chinese Characters*, p. 320.

Comment: Because of the widespread distribution of pictographs over North America, such a statement as the above cannot be taken literally. What Red Paint Person may have done was to begin recording movements, or genealogies, on tally sticks, or he may have been the first Delaware chief to have made serious use of pictographic devices, drawn in red paint, as devices for intra-tribal communications.

26. *Sakimawtenk*,

Taguachi — Shiverer with cold

Shawaniwaen — South he goes

minihaking — Corn land at

25

IV, 24. "After him the chief, One Who Is Cold, went south to the berry country."

[Sakimawtenk (*saakkíima* 'chief' and *wtéñk* 'after'), taguachi (*tahk'ccu* 'he is cold'; cp. *nánkahcu* 'he shivers with cold'), shawaniwaen (*šaawanéew* 'south' and *awéen* 'person'; cp. *-eew* 'to go'), minihaking (*muín* 'small fruit, berry, huckleberry' and *-aakink* 'in the country'; cp. *xáskwiim* 'corn').]

Pictograph: Above the ground line³¹ in this figure is the device meaning snow and cold,¹⁵ while below the line (meaning south),¹⁹ is the emblem of a Lenape chief.⁴⁴

Comment: None.

25. *Sakimawtenk*

Huminienid

Minigeman

Sohalgol

Corn eater

Corn planting

he ~~not~~ creates it

26

IV, 25. "The chief after him was Berry Man, who started the custom of gathering berries."

[Sakimawtenk (*saakkíima* 'chief' and *wténk* 'after'), huminiend (*míin* 'berry' and *-nnu* 'man'), minigeman (*míin* 'berry' and *-iik-amən* 'action by foot'; cp. *hakíiheew* 'he farms', *-hee-* 'to hunt, gather'), sohalgol (*kwiišeelóntamən* 'he creates it').]

Pictograph: The body of this Lenape chief⁴⁴ is made up of a group of small circles, the sign for berries.⁴

Comment: This may refer to the introduction among the Delaware of berry festivals, similar to Iroquois, Shawnee, etc., berry "feasts" or ceremonies, held when the fruit ripened. Such were in effect first-fruit rites.

26'. *Sakimawtenk*Alkosohit Regus and preserv... Sakimakchik 

Apendawi - - useful he

IV, 26. "The chief after him was Made Thin By Heat, and the next chief was One Who Sees Big Things."

[Sakimawtenk (*saakkīima* 'chief' and *wtéñk* 'after'), alkosohit (*aalōoku* 'he is poor, lean' and *-su* 'by heat'), sakimakchik (*saakkīima* 'chief'; cp. *kicīi-* 'big', probably a prior member of the next word), apendawi (*-aappantamōn* 'to see it').]

Pictograph: The glyph for the upper chief⁴⁴ is not repeated in this series of pictographs and does not appear in the literature on the subject so far examined; the meaning is therefore unknown. The two circles connected with the sign for the lower chief⁴⁴ should represent members of the Lenape tribe,⁴³ according to the internal evidence of the Walam Olum.

Comment: The first chief's name may have been either a proper name, bestowed early in life, or a nickname. Nicknames were sometimes used by the historic Delaware, the Shawnee, and other Algonquian tribes.

27. <i>Sakimawtenk</i>	<i>Shiwapi</i> — <i>Salt man</i> —	<u>1184</u>	<u>15</u>	28
	<i>Sakimatenk</i>			
	<i>Penkwonwi</i> <i>Dry he.</i>			29

IV, 27. "The chief after him was Sour Person, and the next chief was One Who Is Dry."

[Sakimawtenk (*saakkíima* 'chief' and *wténk* 'after'), shiwapi (*šwáappe* 'sour person'; cp. *šwáappa* 'vinegar', *šwánpi* 'salt water, ocean', *šwán* 'it is sour'), sakimatenk (*saakkíima* 'chief' and *wténk* 'after'), penkwonwi (*pénkon* 'it is dry').]

Pictograph: The two vertical lines on each side of the first chief⁴⁴ sign reveal that he was in difficulties or trouble.¹⁸ The other pictograph represents a chief⁴⁴ with few or no characteristics.

Comment: The second chief's name may also be a nickname, in view of the verse immediately following.

28. *Attasokelan* — *No raining* ~~34~~ 18
attaminin — *No corn*
wapaniwaen — *East he goes*,
italissipek — *far from the sea*

IV, 28. "It was not raining and there were no berries, so they went over to the east where it was wet."

[*Attasokelan* (*máttá* beside *ta-* beside *kúuta*, negative, and *súukkalaan* 'it is raining'), *attaminin* (*ta-* negative, and *miin* 'berry'), *wapaniwaen* (*wehencióóppank* 'east' and *awéen* 'person'; cp. *-eew* 'to go'), *italissipek* (*ikáli* 'yonder' and *síippe* 'it is wet'; cp. *síippu* 'river', *-óopeekw* 'body of water').]

Pictograph: The vertical line in the small cross represents rain,¹⁴ while the horizontal line negatives it—indicating no rain. The emblem for berries or food,¹⁴ the circle, is below the long horizontal line indicating absence or want of.¹⁷ A Lenape chief's glyph¹⁴ is toward the east.¹⁹ The figure on the left is presumably a direction mark, a conventionalized tail to the arrow pointing eastward.¹⁹

Comment: This suggests that the tribe may have been located on the western edge of the berry region, near the plains. No major migrational move is suggested, however; probably a seasonal excursion is referred to.

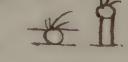
29. Oligonunk — *Hollow mountain over*
Sisilaking — *Cattle land at*
nallimetzin — *at last to eat* 
Kolakwaming *fine plain at*

IV, 29. "By the good hills and along the plains, buffalo were beginning to graze."

[Oligonunk (*woliikonáttən* 'it is a good hill or mountain': *wol-* 'good', *-konattən* 'hill'; cp. *mahciikonáttən* 'it is a bad hill', *pohweekonáttən* 'it is a hollow mountain, a mountain with caves in it'), sisilaking (*siisiiliéeyok* 'buffalo'), nallimetzin (*alsmi-* 'to begin', and *miitsu* 'he eats'), kolakwaming (*kwehkolakwáamee* 'it extends along a plain').]

Pictograph: In this ideograph a great²⁹ Lenape chief⁴⁴ is shown near mountains (large triangles).⁴⁸ That peace prevailed is indicated by the small triangle.²⁸ The divided parallelogram to the right probably is intended to represent a village²¹ since these little squares are above the base line and not a part of it. Bison are shown by the horn glyph.²

Comment: It is significant that, as yet, deer have not been mentioned, whereas fish and buffalo have (see IV, 14, and above). In the woodlands to the east of the buffalo-inhabited plains deer and wild turkeys were the two chief flesh foods.

30. *Wténk-penkwonwi* - after *Penkwonwi*
Wekwochella - Much fatigued 30
Wtenknekama after him 
Chingalsuwi - Stiffened he 31.

IV, 30. "The next in order after One Who Is Dry was One Who Is Tired; after him came handsome Inflexible Person."

[Wtenk-penkwonwi (*wténk* 'after' and *pénkon* 'it is dry'), wekwochella (*wiik-wihileew* 'he is tired'), wtenknekama (*wténk* 'after' and *ninkam-* 'pretty'), chingalsuwi (*cinkáalsu* 'he is stiff').]

Pictograph: The first Lenape chief⁴⁴ seems to be represented both above and below a ground line.³¹ Placement below such a line implies death;¹⁷ might not the location between the two suggest one who is but half living, one who is tired? The height of the body of the second chief,⁴⁴ indicates power.⁵¹

Comment: No major moves occur during the lifetimes of three chiefs.

31. Wtenknekama

Kwitikwond — Reprouer
 Slangelendam — Disliking
 attagatta — unwilling



32

IV, 31. "Next in order was handsome One Feather, engrossed in hate, who wanted to go away . . ."

[Wtenknekama (*wténk* 'after' and *ninkam-* 'pretty'), kwitikwond (*kwótti* 'one' and *-iikkwan* 'feather'), slangelendam (*šink-* 'to hate' and *-eelontam* 'mental attitude'), attagatta (cp. negatives, as *máttá* beside *ta-*, and *áattam* 'let us go'; and *kaht-* 'to desire', as in *kahtalšuwak* 'they want to do so', *nkattiušomwi* 'I am thirsty', *kahtiuuppu* 'he is hungry, he wants to eat').]

Pictograph: The cross within the parallelogram depicts hate,³² while the diagonally curved lines across the body probably show supernatural powers⁶⁹ in this chief.⁴⁴

Comment: The name, as well as the description of this chief, suggests that he may have been a famous warrior. Among the historic Shawnee, warriors wore a single eagle feather in their hair; informants denied that more than one feather was ever worn, as was the case among the Sauk, for example.

32. Wundanuksin — being angry
 Wapanisham — East moving 
 Allendyachick Some going
 Kimimikwi — secretly far off

IV, 32. "... because he was angry; he called for an emigration toward the east, but some went off secretly."

[Wundanuksin (*manúnsu* 'he is angry'); wapanisham (*wehencíóppank* 'east' and *-aiša* 'to take leave from company', as in *nkattaiša* 'I want to leave the room to go out', and *-iim-* 'by speech'), allendyachick (*aalánti* 'some' and *-aaxwee-* 'to go, walk'), kimimikwi (*kiimíiw* 'he does so secretly').]

Pictograph: Many¹ Lenape (4 glyphs)⁴³ secretly (the curved figure)⁵⁹ leave the land (parallelogram)⁴¹ for the east (to the right).¹⁹

Comment: The difficulty in obtaining group unanimity (see also verse 11, Book IV) is again evident. A modern parallel to the events narrated above occurred several decades ago among the Shawnee. Big Jim, a Shawnee chief, was interested in having his group remove from Oklahoma to Mexico. The group as a whole could never agree to the plan; however, one part of it, being piqued with Big Jim, did remove secretly to the Creek country and stayed there for several years.

33. Gunehunga they tarry
 Witatamuwi the wise they 
 Wakahulend loving beloved 33
 Sakimalanop Ring was made

IV, 33. "Those at Snow Mountain were happy and made One Who Is Beloved chief."

[Gunehunga (*kíun* 'snow' and *-aunkee* 'hill, mountain'), witatamuwi (*wílaa-téenamu* 'he is happy'), wakahulend (*ahoolkwósu* 'he is generally liked'; cp. *ntahóola* 'I love him'), sakimalanop (*saakkíima* 'chief' and transitivizer *-al-an-* preceding the common preterite suffix in *-p*).]

Pictograph: The two circles on the ground line³¹ represent the Lenape⁴³ attached by bonds of close relationship⁵ under a chief.⁴⁴

Comment: In all likelihood this is an instance of the re-use of an old place name for a new geographic location. Internal evidence tends to support this view; in Book III, verse 20, all are said to have migrated from Snow Mountain, even the West Delaware, "who came out of humor." Furthermore, too many generations of chiefs and too many movements have been mentioned in Book IV, to permit the reference above being taken as meaning the same Snow Mountain mentioned in Book III. The above line seems to refer to the settlement of those who withdrew from One Feather's group, went off secretly (see verse 32) and chose for themselves a new chief, One Who Is Beloved.

34. Wisawana	Yellow River
lappiwittank	again town
michimini	much Corn
madawasim	great meadows

IV, 34. "Once again they were in a settlement by the Yellow River, where berries were abundant among the rocks and stones."

[Wisawana (*wiisaahónee* 'yellow river': *wiisaaw-* 'yellow', *-hanee* 'river'; cp. *siiskonáhanee* 'Susquehanna, mud river'), lappiwittank (*lápi* 'again' and *uutténank* 'in town'), michimini (*max-* 'large')—either in size or quantity; cp. Ojibwa *mišši-* 'big'; and *miin* 'berry'), madawasim (*máhaləs* 'flint' and *ahsán* 'stone'; but cp. *maxaaməwáasuun* 'big clear meadow').]

Pictograph: Upon the base line²¹ a dwelling or village²¹ is indicated by the parallelogram, while to the right is the emblem for berries⁴ (the circles are too small to be Lenape). A river⁵⁵ is shown extending east and west, possibly south¹⁹ of the village.

Comment: None.

35. Weminitis all being friends
 Tamenend affable
 Sakimanep King became
 Nekohatami alone the first



IV, 35. "When all were friends, Wolf Man was chief; and he was the first of these."

[Weminitis (*wéemi* 'all' and *níittiis* 'my friend'), tamenend (cp. *tomée* 'wolf', *tomáakw* 'beaver', and *-nnu* 'man'), sakimanep (*saakkíima* 'chief'); nekohatami (*néeki* 'these' and *hítami* 'the first').]

Pictograph: Here is a Lenape chief in profile.⁴⁴ The small triangle signifies peace, pleasure, and friendliness.²⁸

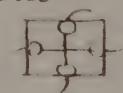
Comment: A new line of chiefs may have been instituted at this time; if so, the man chosen to occupy the office would, of course, be a person well liked by all the tribe. An hereditary chief might be either popular or unpopular, as we have already seen.

36. *Eluwiwulit* — the best

Matemenend — there or now *temenend*

Wemilinapi — all men

Nitispayat — friends coming



IV, 36. "The best person there was Wolf Man: he came as a friend to all the Delaware."

[*Eluwiwulit* (*aləwiiwələsə* 'he is the best one'), *matemenend* (cp. Ojibwa *imaa* 'there'; and Delaware *təmēe* 'wolf' and *-nnu* 'man'), *wemilinapi* (*wéemi* 'all' and *lənáappe* 'Delaware'), *nitispayat* (*níittiis* 'my friend' and *páat* 'he comes').]

Pictograph: This pictograph shows all or many¹ of the Lenape⁴³ of the four quarters of the earth²⁷ bound together with ties of close relationship.⁵

Comment: There seems to be more than a hint here that, once again, the forebears of the Delaware were separated into two or more groups. One of these was probably the Snow Mountain group, the other the Yellow River band.

37. Wtenkwulitma
Maskansisil
Sakimanep
W'tamaganat

after this good there
Strong Buffalo
King was
and Chieftain

35



IV, 37. "It was also good there during the time of the next chief,
Strong Buffalo, the one who went along the road."

[Wtenkwulitma (*wtéñk* 'after' and *woláttenu* 'it is good'), maskansisil (cp. Ojibwa *maškawisi* 'he is strong' and Delaware *siisiiliéyok* 'buffalo'), sakimanep (*saak-kíima* 'chief'), *w'tamaganat* (*tómáakkan* 'road'; cp. *áattam* 'let us go').]

Pictograph: A Lenape chief⁴⁴ whose name must have been derived from a horned animal² is here shown going along a road or trail.⁵⁶ Even though he seems to be facing the west, it is probable that the figure was drawn facing the direction from which it was supposed to be read.

Comment: That the forebears of the Delaware were not an extremely aggressive group who made warfare a constant habit is apparent from the contents of verses 35-38. The names of four successive chiefs are mentioned in these lines, and no mention of war or strife is made. During the historic period the Delaware were often engaged in warfare, it is true, but seldom as the aggressor group, this role falling far more frequently to the Iroquois.

The "road" referred to in this line may be the road to Snake Island; see verse 42, this book.

38. *Machigukhus*
Sakimanep
Wapkicholen
Sakimanep.

(Big Owl



36

White Crane or bigbird)



37

IV, 38. "Then Big Owl was chief, followed by White Bird."

[*Machigukhus* (*max-* 'big' and *kúukhuus* 'owl'), *sakimanep* (*saakkima* 'chief'), *wapkicholen* (*oopp-* 'white' and *cíuləns* 'bird'), *sakimanep* (*saakkima* 'chief').]

Pictograph: These chiefs'⁴⁴ symbols are of an owl and a bird.² The curved line between the two may indicate a road or trail⁵⁶ or may be simply a mark made to show that one followed the other.

Comment: The popularity of general and specific bird names and their association with white is of interest. Bird, White Bird, White Fledgling occur in Book IV (verses 10, 38, 41), as well as White Owl, Young Man Horned Owl, Big Owl (verses 8, 9, 38), and Bald Eagle (verse 2). White would seem, among the modern Delaware, to have some connection with righteousness or with beneficent spirit forces; among many tribes white animals, especially albino deer, were held in high regard, and their skins were used for wrapping up sacred objects.

39.	Wingenund	Mindful	38
	Sakimanep	King was	
	Powatanep	Wodish was	He
	Gentikalanop	Festival he made	

IV, 39. "The next chief was Agreeable Man, a shaman who could hide himself in places where water was shallow."

[Wingenund (*wink-* 'to like to, to find agreeable', as in *nawinkúnkoom* 'I like to sleep'; and *-nnu* 'man'), sakimanep (*saakkiima* 'chief'), powatanep (*paoottáappe* 'shaman'), gentikalanop (*kant-* 'not visible, concealed' and *káahan* 'it is shallow').]

Pictograph: The triangle in this figure indicates that this Lenape chief⁴⁴ was peaceful and friendly.²⁸ The heart-shaped symbol presents a problem, for it is absent in native records. Possibly Rafinesque "improved" the original figure or at the time this version of the Walam Olum was made the Lenape had already been influenced by European symbols. The heart would be one of the most attractive of these to the Lenape, since they often talked about the heart.

Can it be that the four curved lines represent bullrushes (shallow water)? That they have some reference to water is indicated by somewhat similar lines in V, 28 and V, 50.

Comment: This was an accomplishment of no mean value, especially to a warrior. The Shawnee state that warriors all knew, of necessity, how to swim under water and how to hide themselves so completely in water for many hours that nothing save a small part of the nose was above the surface. This ability, gained through training or by virtue of a blessing from supernatural beings, often saved a warrior's life by enabling him to escape detection when enemies were searching for him.

40	Lepawin Sakimane ^p Walam Sakimane ^p	Red Indian Painted	85	39
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IV, 40. "Then Recurrent Fog was chief, followed by Red Paint."

[Lepawin (lay: 'again' and aia 'fog'), sakimane^p (sakimane 'chief'), walam (alam 'Indian paint, red paint'), sakimane^p (sakimane 'chief').]

Paragraph: Here are two Lenape chief totem signs.² The several vertical lines or sections in the body of the one to the right may mean "red," if we may judge by much the same inference in IV, 23 and V, 5. A glyphe used by the primitive Chinese, meaning "blood," is almost exactly like the representation of the body of this chief. Wieger, *Chinese Characters*, p. 27.

Comment: Note the recurrent use here of a personal name, Red Paint. The first chief so to be known by this name is mentioned in Book IV, verse 23. Among the Shawnee personal names are not supposed to be repeated in this fashion, nor are two living persons ever supposed to bear the same name; occasionally, however, there is such repetition. The probability that the Delaware also used the same name for more than one geographical object has already been commented upon (see IV, 33).

41. Waptipatit - White chicken 41
 Sakimanep
 Lappimahuk - again there is war ⁷⁵ X
 Lowashawa - North & South

IV, 41. "When White Fledgling was chief, blood flowed again in the north and in the south."

[Waptipatit (*oopp-* 'white' and *típaas* 'chicken' and *-ttótt-* diminutive), sakimanep (*saakkíima* 'chief'), lappimahuk (*lápi* 'again' and *mhúkw* 'blood'), lowashawa (*luuwaniisaawanée* 'north and south'; cp. *luuwanée* 'north', *lúuwan* 'winter', *saawanéew* 'south').]

Pictograph: A young bird² is the symbol of this Lenape chief,⁴⁴ and war (the X's)⁷⁴ was waged in the north and south as indicated by the positions of the X's below and above the ground line³¹ and the direction mark attached to each of them.¹⁹

Comment: The northern or Snow Mountain people, and the Southern or Yellow River band, are apparently referred to here. Whether the two bands were fighting against each other, or against outside enemies, is not clear.

42. Wewwattan to be wise or by wise
 Menattin in assembly 42
 Tumaukan Wolf Strong
 Sakimanep King war

IV, 42. "When Clever One was chief, on the road toward Islands, . . ."

[Wewwattan (*wəleeyōttam* 'he is smart, clever'), menattin (*manāattay* 'island' and locative ending in *-nk*), tumaukan (*təmāakkan* 'road'), sakimanep (*saakkūima*. 'chief').]

Pictograph: This Lenape chief⁴⁴ has his emblem, a wolf,² drawn within the circle of his body. The text indicates that the meaning of the triangles is islands.³⁹

In the text the locative suffix precedes the word for "island" which may therefore be translated as either singular or plural; the pictograph supports the plural translation.

Comment: The reason for the Delaware being in a state of war is explained. They were moving again into new country and meeting resistance from the occupants of the land.

43. Nitatonepi He was able
 Wemipalliton to war on all
 Maskansini Strong Stone
 nihillanep he killed 

IV, 43. "... he taught all to be destructive by killing Strong Stone."

[Nitatonep (cp. *kəniitántalaan héč* 'did you teach him?'), wemipalliton (*wéemi* 'all' and *polítiuun* 'he spoils, destroys it'), maskansini (cp. Ojibwa *maškawisi* 'he is strong' and Delaware *ahsín* 'stone'), nihillanep (cp. *nníhila* 'I killed him').]

Pictograph: The death¹⁷ of a brave⁶ and great chief²⁹ of an unknown tribe is here recorded. A Lenape chief's glyph⁴⁴ and an X of war⁷⁴ complete the pictograph.

Comment: None.

44.	Messissuwi Sakimanep Akuwini Pallitonep	Whole he King was Snake beings or little he war made	63
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IV, 44. "When Hands Over Everything was chief, he destroyed things belonging to the Snake people."

[Messissuwi (cp. *neməsəsəməmən* 'I have my hand covering it wholly'), sakimanep (*saakkūima* 'chief'), akuwini (*xkúuk* 'snake' and *awéen* 'person'), pallitonep (*polii-tuun* 'he spoils, destroys it').]

Pictograph: This figure plainly shows that a brave⁶ Lenape chief⁴⁴ waged war⁷⁴ against the Snakes.⁶³

Comment: The things destroyed belonging to the Snake (or enemy) people were probably their dwellings and cached stores, which would be fired.

45	Chitanwulit	Strong and good	14
	Sakimanep	King was	5
	Luwanuski	Northern for	(□)
	pallitonep	he war made	

IV, 45. "When Strength In Goodness was chief, he destroyed things belonging to those who traveled in the north."

[Chitanwulit (*wəliciittan̄su* 'he is good and strong': *wəl-* 'good', *ciittan̄su* 'he is strong'), sakimanep (*saakk̄ima* 'chief'), luwanuski (*luuwanée* 'north' and *-sk-* 'going by use of feet'), pallitonep (*políituun* 'he spoils, destroys it').]

Pictograph: This is a record of war⁷⁴ between the Northerners (with T-shaped head ornament)³⁸ and a brave⁶ Lenape chief.⁴⁴ The meaning of the chief's body below the ground line¹⁷ is obscure since there is nothing in the text suggesting calamity other than war.

Comment: Here again there is a hint that the northern and southern Delaware groups may have been on warlike terms with each other at this time. See verse 41, this book.

46.	Alekuwi	Lean he	8	45
	Sakimanep	king was	X	
	Tuwakun	Rattle Snake		
	pallitonep	he war made		

IV, 46. "When Lean One was chief, he destroyed things belonging to the Snake clan of the Ottawa."

[Alukuwi (*salbok* 'he is poor, lean'), sakimanep (*saskitiim* 'chief'), tuwakun (*tsuukun* 'Ottawa tribe or individual' and *tskink* 'snake'), pallitonep (*polittun* 'he spoils, destroys it').]

Pictograph: The name of this chief⁴⁴ in the text is corroborated by the single line representing his body. He is shown as successful at war⁴⁵ having killed⁴⁶ the Snakes.⁴⁷ The text reads "Snake clan of the Ottawa," and at first glance there seems to be a slight difference in the head ornament as compared to that of the Snake tribe, but such is not always the case in subsequent occurrences.

Comment: The Ottawa are a northern Algonquian-speaking group who, when first known to Europeans, were located along the north and south shores of Georgian Bay and on Manitoulin Island. The Ottawa are closely related to the Ojibwa; their dialects are mutually intelligible. There is no record, at present, of a Snake clan among either the Ojibwa or the Ottawa, but three authors mention the existence of a Rattlesnake clan. Speck gives *piikaxsa* as the modern Delaware name for the Ottawa, but in a footnote remarks that "it is more probable that [this] term denotes the Piankashaw of Illinois and Indiana with whom the Delawares were associated before their removal across the Mississippi." Speck, *Oklahoma Delaware Ceremonies, Feasts and Dances* (Philadelphia, 1937), p. 113.

47. Opekasit Easterly looking 16
 Sakimanep King was. 
 Sakkelendam Being Sad
 pallitonepit at the warfare

IV, 47. "When Opossum Face was chief, he worried about the destruction of things belonging to others."

[Opekasit (cp. *ooppíinkok* 'opossums', *oppíkweew* 'he has a bald face, white face'), sakimanep (*saakkíima* 'chief'), sakkelendam (*sakkweeléntam* 'he is sad, worried, troubled'), pallitonepit (*políituun* 'he destroys it').]

Pictograph: The eye symbol²³ with the sight line⁶⁰ crossed by three vertical lines indicates something perilous³⁷ in the range of vision.

Comment: The name for this chief probably refers to the fact that he had a paler complexion than many. Speck observes that, among the modern Delaware, one of the terms used "to denote Europeans is *ɔ'ping* 'oppossum', the likeness arising through the pale face and slobbering laugh characteristic of both in Delaware opinion." Speck, *Oklahoma Delaware Ceremonies*, p. 116, note 41.

48.	Wapagishik	East Sun or Sunrise.
	yuknohokluen	Let us go saying 4444 4444
	makeluhuk	they are many
	wapaneken	East going together

IV, 48. "Now when daylight came, he spoke three times: 'Let those going east be many.'"

[Wapagishik (*oopp-* 'white, light' and *kiišku* 'day'; cp. *cinkwéhelee* 'it is sunrise', *kiišuux* 'sun'), yuknohokluen (*yukwe-* 'now' and *naxá* 'three' and *lúweew* 'he says'); makeluhuk (*maxeel-* plural form of *xahéeli* 'much, many' and plural suffix in *-k*), wapaneken (*wehencii* *óoppank* 'east' and *néeki* 'those').]

Pictograph: All or many¹ of the Lenape⁴³ are drawn with the rising sun,⁶⁸ signifying east.¹⁹

Comment: Again the number three appears, but this time it is not used to refer to politico-geographic bands, as in verse 12, this book. The chief repeats a command three times; this, together with the other references to three in the Walam Olum, suggests that formerly it was a Delaware ritual number.

49. *Tsehepiken* . . . Separated
Nemissipi . . . Fish River 
Nulanduwak lazy they
gnehunga they carry

IV, 49. "They separated at —? River; and the ones who were lazy returned to Snow Mountain."

[Tsehepiken (cp. *cpihiléeyok* 'they separated', *ncəppíhila* 'I separated from others'), *nemissipi* (*namées* 'fish' and *siippu* 'river'); *nulanduwak* (*níulhant* 'he is lazy'), *gnehunga* (*kíun* 'snow' and *-aunkee* 'hill, mountain').]

Pictograph: Reading from left to right, the elements in this figure are first a mountain.⁴⁸ Within the triangle representing this mountain there seems to be a single plumed Lenape glyph.⁴⁹ Next come four Lenape signs and then a great river,⁵⁰ extending north and south, with rolling land⁴² to the east.¹⁹

Comment: Due to an erasure and a rewriting of the name of this river, this is the most confusing line in all the songs. Through the kindness of Dr. Mason of the University of Pennsylvania, photographic and handwriting experts were called upon to help solve this problem, all to no avail.

Doing the best possible in deciphering the name the three following possibilities develop:

	ena			
M	ein	b	issipi	Manabozo river
	eina			
N	em	sa	issipi	Fish River
N	em	la	issipi	Island River
		ta		

With all due respect to theorizing, it seems advisable to give weight to the tradition recorded by Heckewelder and to conclude that the river was the Mississippi (see *post*, pp. 280-81).

50.	Yagawanend	Hut maker		17
	Sakimanep	King was		
	Talligewi	Taligewi or there found		
	Wapawullaton	East putting		18

IV, 50. "When Lean-to Man was chief, the Talligewi were in possession of the east."

[Yagawanend (*yaakkáan* 'shade house, hut, lean-to' and *-nnu* 'man'), sakimanep (*saakkíima* 'chief'), talligewi (possibly *teels-* 'foreign' and *kíuuwe* 'pine', in reference to a non-Delaware tribe with a hint of a pine-clad habitat—perhaps the Yuchi; Brinton gives other possible explanations but our analysis is supported by a comparable Delaware form for Talamatan, as under IV, 54), wapawullaton (*oopp-* or *wehencíóoppank* 'east' and *wéláatuu-n* 'he has it' or 'he puts it away').]

Pictograph: A Lenape chief,⁴⁴ whose body is the sign for a dwelling or village,²¹ is represented as separated by a cleft¹² from the hilly or rolling land⁴² of the Talligewi⁷⁰ to the east.¹⁹ The symbol for the Talligewi is the small circle with the short horizontal line drawn from the top of the head squarely to the right.

Comment: One of the great problems in connection with the Walam Olum is, who were the Talligewi? For a discussion of this point see *post*, pp. 281ff.

51.	Chitanitis Sakimanep Wapawaki Gotatamen	Strong friend King was East rich land he desires.	48
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IV, 51. "When Strong Friend was chief, he wanted to go to the eastern country."

[Chitanitis (*ciittanásu* 'he is strong' and *níittiis* 'my friend'), sakimanep (*saak-kiima* 'chief'), wapawaki (*wehencíóoppank* 'east' and *hákki* 'land'), gotatamen (*kaht-* 'to desire' and cp. *áattam* 'let us go').]

Pictograph: This figure is emblematic of a Lenape chief⁴⁴ traveling⁷¹ on a road (the curved line)⁵⁶ to the east.¹⁹ The eastern rolling land⁴² is a separate country as shown by the vertical cleft.¹²

Comment: None.

52.	Wapallendi	Cast some	{ 
	pumisinep	went or passed	
	Talegawil	Talga head or Emperor	
	Allendhilla	Some kill	

IV, 52. "When some infiltrated into the east where the Talligewi were, some were killed."

[Wapallendi (*wehencióoppank* 'east' and *aalánti* 'some'), pumisinep (*pamíixiin* 'he creeps'), talegawil (*teels-* 'foreign' and *kúuwe* 'pine' and the intransitive formative *-l-*), allendhilla (*aalánti* 'some' and cp. *nníhila* 'I kill him').]

Pictograph: The wavy line probably pictures the same river⁵⁵ as in pictograph IV, 49, extending north and south.¹⁹ The two circles represent some¹ Lenape,⁴³ while the curved line leading to the Talligewi symbol,⁷⁰ suggests a road or trail.⁵⁶

Comment: This passage has a very close parallel in Heckewelder's account of the Delaware migration eastward into the land of the Talligewi or Alligewi. Heckewelder says, "They [the Delaware] . . . began to cross the Namaesi Sipu, when the Alligewi . . . made a furious attack on those who had crossed. . . ."

53. *Mayoksuwi* ... of one mind
Wemilowi all say 
palliton Warfare
palliton Warfare

IV, 53. "In right-minded indignation, all said: 'Let us despoil! let us destroy!'"

[Mayoksuwi (*mayaittééhee* 'he is right minded'; cp. *kwəttitéehee* 'he is of one mind'); *wemilowi* (*wéemi* 'all' and *lúveew* 'he says so'); *palliton* *palliton* (*pal-* 'to destroy'; cp. *políituun* 'he spoils, destroys it').]

Pictograph: The group of circles represents all or many¹ of the Lenape.⁴³ The horizontal line symbolizes speech⁴⁴ and the X stands for war.⁷⁴

Comment: The Heckewelder account again parallels the Walam Olum material. "Fired at the treachery of these people . . . the Lenape consulted on what was to be done . . . the resolution was taken . . . to conquer or die . . . and great battles were fought, in which many warriors fell on both sides."

54. *Talamatan* - *Not talan?* (Hurons)
Nitilowan *friends of North*
payatchik *coming they* 
Wemiten *to go all united* 

IV, 54. "The Iroquois, their northern friends, then arrived; and all was explained to them."

[Talamatan (*teel̄man̄sttu* 'Iroquois tribe or individual': *teel̄-* 'foreign' and *man̄sttu* 'spirit, manitou'; this is the present day Oklahoma Delaware term for the local Wyandot or Huron branch of the Iroquois family), nitiluwān (cp. *nūttiis* 'my friend' and *luuwānēe* 'north'), payatchik (*pāat* 'he comes'); wemiten (*wéemi* 'all' and *-ttuunhee-* 'to talk').]

Pictograph: The lines connecting the glyph for the northern¹⁹ Iroquois³⁸ at the top of the figure with the two circles standing for the Lenape⁴³ show a bond between the tribes.⁵

Comment: The Walam Olum and Heckewelder accounts differ in implication at this point. In the Heckewelder account the Iroquois are said to have helped the Delaware in the latter's war with the Talligewi, but to have always stayed in the rear, leaving the Delaware to face the enemy alone.

Speck also found the term *teel̄man̄sttu* used by modern Delaware for the Huron or Wyandot. For the Iroquois he recorded *opannu*, for the Seneca, *Me'-nkwe*. This latter Heckewelder and other earlier writers often translate as Iroquois. At this late date there seems to be little hope of determining with any degree of certainty whether the Huron or the Five Nations Iroquois, or even some other Northern Iroquoian-speaking group is referred to in the line above. Hence we employ the general term Iroquois, and do not attempt to specify which Iroquois tribe is involved.

55.	Kinehepend	Sharp he was		49
	Sakimanep	King was		
	tamaganat	Leader		
	Sipakgamen	River over against		

IV, 55. "It was while Long Bread was chief that they went along the road and on the river to the other side of the water."

[Kinehepend (*konéepoon* 'long loaf of bread': *kon-* 'long', *-eepoon* beside *áhpoon* 'bread'; cp. *kiine* 'it is sharp'), sakimanep (*saakkíima* 'chief'), tamaganat (*tamáakkan* 'road'; cp. also *áattam* 'let us go'), sipakgamen (*síippu* 'river' and *kaamínk* 'across the water').]

Pictograph: Above the ground line³¹ is first the symbol for a Lenape chief⁴⁴ whom the arrow identifies as a hunter,³⁵ then two semicircular land figures,⁴² possibly hinting something of a river valley between. The Talligewi mark⁷⁰ is to the eastward.¹⁹ Below is a sketch of a pair of legs, spread as in the act of walking.⁷¹

Comment: The action against the Talligewi would seem to have been taken while Long Bread was chief. This chief's name is reminiscent of the surname adopted by a present-day Delaware family—the Longbones, of Dewey, Oklahoma.

56. *Wulatonwi* *Makelima* *Pallihilla* *Talegawik* *Possessing they* *much there is* *Spoil & killing* *Talega they* *so* *country*

IV, 56. "That was good, for they killed many there in the Talega country."

[Wulatonwi (*wulat̄nu* 'it is good'), makelima (*maxeel-* beside *xahéeli* 'much'; cp. Ojibwa *imaa* 'there'), pallihilla (cp. *mpaliha* 'I destroy him'), talegawik (*teel-* 'foreign' and *kúuwe* 'pine' and *-aaki* 'land').]

Pictograph: This figure shows two lands, the semicircles⁴² the western¹⁹ one occupied by a Lenape chief,⁴⁴ the eastern¹⁹ by the Talligewi⁷⁰ who were in trouble as indicated by the two pairs of short vertical lines.¹⁸ War (the X) was waged between the two.⁷⁴

Comment: In the Heckewelder account, an engagement is mentioned, "in which hundreds fell." "No quarter was given," and at last the Talligewi "fled down the Mississippi river, from whence they never returned."

57. *Pimukhasuwi* — Stirring about he 50
Sakimanep — King was
Wsamimaskan — too much strong
Taligawik — Talega they



IV, 57. "When One Who Has A Resonant Voice was chief, they were exceedingly powerful in the Talega country."

[Pimukhasuwi (*pam-* beside *pam-* 'along' and *-iix-su* 'singing voice'), sakimanep (*saakkiima* 'chief'), wsamimaskan (cp. underlying *wsaami-* in *sooméeli* 'too much', *oosóomi* 'all right'; and cp. *max-* 'big' and Ojibwa *maškawisi* 'he is strong'), talegawik (*teelə-* 'foreign' and *kúuwe* 'pine' and *-aaki* 'land').]

Pictograph: It is recorded in this pictograph that a prosperous⁵³ Lenape chief⁴⁴ waged war⁷⁴ with the eastern¹⁹ Talligewi⁷⁰ villages.²¹

Comment: If the Allegheny and Ohio rivers were, as Heckewelder suggests, the locale of the Talligewi before they were defeated by the Delaware, we have a fairly specific region in which to place the latter tribe at this time.

58. *Teeche Tenchekensit* — opening path 51
 Sakimanep King was 
 Wemilat — all given to him
 Makelinik — many places or towns

IV, 58. "When Little Basket was chief, they were given many dwelling places."

[Tenchekentit (*tankháakkan* 'basket' and diminutive suffix *-ttət*), sakimanep (*saakkíima* 'chief'), wemilat (*mwíilaan* 'he gives it to him'; cp. *wéemi* 'all'), makelinik (*maxeel-* beside *xahéeli* 'much' and *-nnu* 'man' and *-hik* 'abode').]

Pictograph: A Lenape chief⁴⁴ is here commemorated as having war⁷⁴ with the Talligewi⁷⁰ villages²¹ to the eastward,¹⁹ and as having some relationship⁵ with their dwellings, probably capturing them.

Comment: The former residents of the country seem to be gradually yielding their villages to the victorious invaders.

59.	Paganchihilla	Great fulfiller	5.2
	Sakimanep	King was	
	Shawanewak	South they go	
	Wemitalega	all the Talegas	

IV, 59. "When Go Between was chief, all the Talega habitations were in the south."

[Paganchihilla (*paxanhíhileew* 'he gets between, runs between two opposing sides'), sakimanep (*saakkíima* 'chief'), shawanewak (*šaawanéew* 'south' and *-aaki* 'land'; cp. *-hik* 'abode'), wemitalega (*wéemi* 'all' and *teels-* 'foreign' and *kíuwe* 'pine').]

Pictograph: The land (semicircle)⁴² is shown in possession of the Lenape chief.⁴⁴ All or many¹ of the Talligewi (the group of circles below the ground line)⁷⁰ have gone south.¹⁹ The squares to the right represent villages²¹ and the X below, war.⁷⁴

Comment: None.

60 Hattanwulaton He has possession - 53
 Sakimanepi Was King
 Wingelendam are well pleased
 Wemilennowak all the people 

IV, 60. "When One Who Preserves What Is There was chief, all the men enjoyed living."

[Hattanwulaton (*háttee* 'it is there' and *wəláatuun* 'he puts it away'), sakimanep (*saakkíima* 'chief'), wingelendam (*winkeelíntam* 'he likes to remain as he is': *wink-* 'to like to' and *-eelíntam* 'mental attitude'), wemilennowak (*wéemi* 'all' and *lónuwak* 'men').]

Pictograph: Here a hallowed (dotted circle)²⁰ Lenape chief⁴⁴ is shown joined to all or many¹ of the tribesmen⁴³ with bonds of close relationship.⁵

Comment: None.

61. Shawanipekis south of the lakes
 Gunehungind they ~~near~~ little fire 
 Lowanipekis north of the lakes
 Talamatanitis Iroquois friends

IV, 61. "The Snow Mountain men were now south of the lakes; and while their Iroquois friends were north of the lakes . . ."

[Shawanipekis (*šaawanéew* 'south' and *-oppeekw* 'body of water'), gunehungind (*kúun* 'snow' and *-aunkee* 'mountain' and *-mu* 'man'); lowanipekis (*luuwanée* 'north' and *-oppeekw* 'body of water'), talamatanitis (*teeləmanóttu* 'Iroquois tribe or individual' and *niittiis* 'my friend').]

Pictograph: The central glyph here is a bowl-shaped figure representing a body of water.⁷⁵ The hallowed (dotted circles)²⁰ ancestors of the Lenape⁴³ are shown to be south¹⁹ of this body and the Iroquois³⁸ to the north.¹⁹ The triangles indicate peace and friendliness.²⁸ The short vertical lines drawn from the apex of each triangle are direction marks pointing toward the north.¹⁹

Comment: Mention of the Iroquois north of the lakes is of interest. In a general way the statement coincides with what we know concerning early historic locations of some of the Iroquoian-speaking peoples.

62. Attabchinítis - Not always friend 
 Gishelendam - conspiring
 Gunitakan - long and mild 54
 Sakimanep - King was

IV, 62. ". . . these were incapable of remaining friends, for they went about to forbidden places when Snow Blizzard was chief."

[Attalechinitis (*máttá* beside *ta-* 'not' and *ala-* 'to be unable' and *-iix-* 'to be at rest' and *niittiis* 'my friend'), gishalendam (*kš̥weelántam* 'he wants to go to a forbidden place'), gunitakan (*kúun* 'snow' and *táxan* 'it blows cold'), sakimanep (*saakkíima* 'chief').]

Pictograph: Hate, as shown by the boxed X,³² separates the Iroquois³³ from the land⁴¹ of the Lenape chief.⁴⁴

Comment: The personal and geographic names (Snow Blizzard, Snow Mountain) mentioned in connection with this group of Delaware would indicate that the band was still located fairly far north of the Delaware group which dispossessed the Talligewi of their lands.

63.	Linniwulamen	Man of truth	55
	Sakimanep	King was	
	Pallitunep	Warfare made	
	Talamatan	Curves	

IV, 63. "When Truth-Telling Man was chief, the Iroquois had already destroyed things."

[Linniwulamen (*ləniwəlāamuweew* 'he tells the common truth' and *-nnu* 'man'), sakimanep (*saakkūima* 'chief'), pallitunep (*polīituun* 'he spoils, destroys it'), talamatan (*teelmanāttu* 'Iroquois tribe or individual').]

Pictograph: This glyph shows the Iroquois (left)³⁸ at war (X)⁷⁴ with a Lenape chief⁴⁴ of hallowed memory.²⁰

Comment: It is not clear here whether Truth-Telling Man was the chief of the northern or of the southern Delaware group. In all probability the two groups were in fairly close touch with each other, and the enmity which the Snow Mountain people came to feel for the Iroquois was shared finally by the Southern Delaware group also.

64. *Shakagapewi* — Just & upright he 56
 sakimanep King was 
 nungiwi — trembling he
 Talamatan — (Huron-


IV, 64. "When Upright Nature was chief, the Iroquois trembled."

[Shakagapewi (*šaxahkaappéeyu* 'he is upright in character': *šaxahk̓su* 'he is straight', *-aappee-y-* 'nature of a person'), sakimanep (*saakkúma* 'chief'), nungiwi (*nankíihileew* 'he trembles': *nank-* 'to tremble'; this prior member may appear before suffixes other than *-ihileew*), talamatan (*teelmanáttu* 'Iroquois').]

Pictograph: The two wavy lines connected with the Iroquois glyph³³ are emblematic of fear, trembling.²⁴ The significance of the parallelogram is uncertain. It forms the body of the chief,⁴⁴ but it might picture dwellings or villages.²¹

Comment: Reprisals under Upright Nature were apparently effective and the Iroquois, once friends and allies of the Delaware, are now greatly afraid of the latter.

WALAM OLUM

Book V

1. *Wemilangundo* — All peaceful
Wulamotalli Long ago there —
Talegaking Talega land at

V, 1. "Long ago all kept peace with each other there in the Talega country."

[Weimilangundo (*wéemi* 'all' and *wolankúntuwak* 'they keep peace with each other'), wulamotalli (*lómouwe* 'long ago' and *táli* 'there'), talegaking (*teels-kúuwé* 'foreign pine' and *-aaki* 'land', with locative ending in *-nk*).]

Pictograph: Book Five begins with the same expression as Book Four, "Long ago," and in both cases a large circle conveys the thought.⁴⁶ Within the large circle is a smaller suggesting divinity or hallowed memory.²⁰ The parallelogram in the background represents flat land⁴¹ and the Talega sign is attached to each upper corner of it.⁷⁰

Comment: A long period of peace ensues, after the Delaware were successful in their opposition to hostile Iroquois tribes.

2. Tamaganend . . Chieftain ^{on Beaverg ladder} ~~such~~ 85 1951
 Sakimanep . . King was
 Wapalaneng . . White River at (Wabash)

V, 2. "Road Man was chief there along the middle reaches of the White River."

[Tamaganend (*təmáakkan* 'road' and *-nnu* 'man'), sakimanep (*saakkíima* 'chief'), wapalaneng (*oopp-* 'white'; and cp. *-alani-ee-* 'tail feathers', *laaii-* 'midway', *-hanee-k* 'river').]

Pictograph: To the right of the representation of a Lenape chief⁴⁴ appears a river glyph⁵⁵ showing a river running north and south.¹⁹

Comment: "Road Man," used either as a personal name or as a term for an official, appears to have considerable antiquity among the Delaware, and also the Shawnee. At the present time both tribes designate the leader of the recently introduced peyote ceremony as the "Road Man," when referring to him in English.

3. Wapushuwi	White Lynx he	58
sakimanep	King was	
kelitgeman	much planting corn	

V, 3. "When White Wildcat was chief, there was much farming."

[Wapushuwi (*oopp-* 'white' and *púušis* 'cat'), sakimanep (*saakkúima* 'chief'), kelitgeman (*xahéeli* 'much'; and cp. *hakúiheew* 'he farms', *xiimiin* 'persimmon').]

Pictograph: The ears on the glyph for this Lenape chief⁴⁴ substantiate the text in calling him "Cat."² Farm crops are clearly drawn to the right and the base of the figure is the familiar sign for flat land.⁴¹

Comment: This is the first mention of farming being practiced by the Delaware. It denotes, of course, a southerly shift in the location of the group, and contact with other agricultural peoples. When first known to Europeans the Delaware were growing crops, but not on the same scale that the Southeastern tribes, such as the Choctaw, engaged in agricultural pursuits.

4. Wulitshinik . . . Good story or well . . .
 Sakimanep King was . . .
 Makelopannik Many they were people

V, 4. "When One Who Dreams of Good Things was chief, there were many people."

[Wulitshinik (*wəlātt̄nu* 'it is good' and *-aašiimw̄i* 'to dream'; cp. *wəliciittan̄su* 'he is good and strong'), sakimanep (*saakk̄iima* 'chief'), makelopannik (*maxeelaap-p̄éyok* 'there were many people').]

Pictograph: Here are shown many¹ followers⁴³ with a Lenape chief.⁴⁴ The cubical glyph for great²⁹ and the usually smaller, flatter ideograph for dwellings or villages²¹ are sometimes difficult to distinguish. This is one of the borderline cases.

Comment: Evidently the Delaware were at this time leading a fairly settled existence, with opportunities to raise annual crops. This increase in their food resources, combined with a peaceful mode of life, would, of course, contribute to a populational increase of the tribe.

5. *Lekhikitin* *Writer writing*  60
Sakimanep *King was*
Walamolumin *Painted writing*

V, 5. "When One Who Writes was chief, true records were kept."

[*Lekhikitin* (*leekhíikkeew* 'he writes'), *sakimanep* (*saakkíima* 'chief'), *walamolumin* (*wəlaamweeyóokkan* 'truth' and *ooláman* 'Indian paint, red paint').]

Pictograph: Compare this Lenape chief's glyph⁴⁴ with IV, 23. They are essentially alike. Since in both cases drawings or records are mentioned in the text, it is probable that such pictographic records as those of the Walam Olum are indicated by them—a tied bundle of record sticks. Since the lines of the original pictograph were probably made in red, the vertical lines in this figure may indicate the color red as in IV, 40, and probably V, 23.

Comment: A settled mode of life, in which there was some opportunity for specialization on the part of talented individuals, plus contacts with southerly tribes possessed of more complex cultures than the northern groups, would put the Delaware in a position to elaborate on such nonessential arts as record keeping.

6. Kolachuisen pretty bluebird 6
 Sakimanep 
 Makeliming much fruit at

V, 6. "When Old Bird was chief, there were many berries."

[Kolachuisen (*xó̄wi* 'old' and *cíuləns* 'bird'), sakimanep (*saakkíima* 'chief'), makeliming (*máxeel-* 'many' and *mín* 'berry').]

Pictograph: The wings of a bird² have been incorporated in this Lenape chief's glyph.⁴⁴ The short vertical lines on the ground line³¹ delineate vegetation,⁷² and the suspended circles, berries or food.⁴

Comment: This line would seem to indicate that the Delaware, although now practicing agriculture, had not entirely abandoned older subsistence activities. Such a combination of hunting-gathering and agricultural activities was practiced by the historic Delaware, the Shawnee, and other eastern tribes. The southeastern groups, however, placed a greater reliance upon farm products for subsistence, than upon wild plants or wild game food.

7. *Pematalli* *Content there* 8 62
Sakimanep .
Makelinik *Many towns*

V, 7. "When One Who Remains was chief, there were many dwelling places."

[Pematalli (*pam-* 'along' and *táli* 'there'), sakimanep (*saakkíima* 'chief'), makelinik (*maxeel-* 'much' and *-nnu* 'man' and *-hik* 'abode').]

Pictograph: The emblems of a Lenape chief,⁴⁴ dwellings or villages,²¹ and flat land⁴¹ make up the ideograph.

Comment: Again a reference to populational increase emphasizes the settled, peaceful existence of the group at this time. Of the various central Algonquian tribes, the historic Delaware give the impression of having been least warlike; this may be a reflection of their sojourn among the more settled southerly tribes.

8. *Se pomahemen* *Navigates up*  63
Sakimanep
Makelanep *Much River at*

V, 8. "When One Who Paddles was chief, they traveled on many rivers."

[Pepomahemen (*pəm-* 'along' and *-h-* 'by hand', followed by transitivizer *-mən*), sakimanep (*saakkiima* 'chief'), makelanep (*maxeel-* 'much, many' and *-hanee-k* 'river').]

Pictograph: This chief of the Lenape⁴⁴ is portrayed in a canoe or boat⁴⁵ upon a river.⁵⁵

Comment: Curiously enough, the names of several of the chiefs in this part or song indicate the major activities of the group during the lifetime of the chief mentioned (see verses 4, 5, 7, 8, also 17). Although we are told that among the historic Delaware nicknames were frequently used, these ex post facto names of chiefs are puzzling, unless it was customary to give men, especially chiefs, nicknames fairly late in life.

The settled mode of living of the Delaware would seem to be changing, as another period of exploration begins. Possibly the tillable land near the villages was becoming less and less productive, and the stock of wild game was being depleted.

9 Tankawun - Little cloud 6469
 Sakimanep - King was ~~cross~~
 Makeleyachik - Many going

V, 9. "When Little Fog was chief, many of them went away . . ."

[Tankawun (*tank-* 'little, insignificant' and *aón* 'fog'), sakimanep (*saakkima* 'chief'), makeleyachik (*maxeel-* 'many' and *-aacciik* 'ones who went').]

Pictograph: The line drawn through the Lenape chief's symbol⁴⁴ implies a cloud.¹³ All or many¹ of the nation⁴³ are shown to be traveling.⁷¹

Comment: The frequent tendency, among the Algonquian tribes, for small groups to desert the parent body and lead an autonomous existence of their own for several years, has been commented upon in Book IV. This tendency seems to have been particularly marked among the more southerly historic Algonquian groups, such as the Delaware, the Shawnee, Kickapoo, Potawatomi, Sauk, Fox, and Miami.

10. *Nentegowi* *the Nentegos* 
Shawanowi *the Shawnee* 
Shawanaking *South land at* 

V, 10. "... with the Nanticoke and Shawnee to land in the south."

[Nentegowi (*nenekóosak* 'Nanticoke Indians'), shawanowi (*šaawaníuwak* 'Shawnee Indians'), shawanaking (*šaawanéeyunk* 'to the south' and *-aaki* 'land').]

Pictograph: It may be presumed that the sign to the lower left signifies the Nanticoke and the one to the right the Shawnee. These conclusions are reached for two reasons: first, these figures probably should be read from left to right and second, the glyph for Shawnee is repeated in V, 46—a short stroke downward indicating the south.¹⁹ The semicircular figure represents rolling land,⁴² and the position of the tribal glyph below the ground line³¹ indicates the south.¹⁹

Comment: A close relationship has existed throughout historic times between the Delaware and the Shawnee, and the Delaware and the Nanticoke. The two latter tribes were, when discovered, living in the present states of Delaware and Maryland, respectively. The Shawnee may have also lived quite close to the Delaware, in eastern Pennsylvania or western New Jersey, during proto-historic times; some of the Shawnee, when first encountered by the whites, were found farther south, however, along the Savannah River. We have no historic records of Delaware or Nanticoke bands situated as far south as we know the Shawnee were, but certainly many statements in Books IV and V of the Walam Olum suggest that the Delaware (and their close historic neighbors, the Nanticoke) knew certain of the southern tribes fairly well.

11 Kichitamak — Big Beaver
 Sakimanep — King was
 Wapalwning — White Lick at

63



V, 11. "When Big Beaver was chief along the middle reaches of the White River . . ."

[Kichitamak (*kicii-* beside *kiitt-* 'big' and *təmáakw* 'beaver'), sakimanep (*saak-kiima* 'chief'), wapalwning (*oopp-* 'white' and *laaii-* 'midway', and *-hanee-k* 'river').]

Pictograph: An imitation of the tail of a beaver² is attached to this tribal chief's representation.⁴⁴ The curved line in the base suggests a river valley.⁵⁵

Comment: None.

12. Onowutok — Prophet 66
 Awolagan — heavenly
 Wunkanahep — West he went

V, 12. "... he spoke for the future: 'Oh stars, help us go west...'"

[Onowutok (*oowiyeyaxtúunhees* 'prophet': *oowiyée* 'later on, in future' and *aayaxtúunhee* 'he talks'): awolagan (*awíi* 'oh' and *alánk* 'star'), wunkanahep (*wənc-* beside *wənt-* 'direction there' and *wsíikkaa* 'the sun is setting'; cp. *eheliwsíi-kaak* 'west' and *-eew* 'to go').]

Pictograph: Ideograms for western¹⁹ or setting sun,⁶⁸ flat land,⁴¹ and a Lenape chief⁴⁴ compose this figure.

Comment: Prophets, or gifted persons who could foretell future events, have long been recognized among the Delaware, the Shawnee, the Kickapoo, and other Algonquian tribes. Two famous ones, in historic times, were the Delaware Prophet and Tenskwatawa, the Shawnee prophet.

13. *Wunpakitonis* — West abandoned 
Wunshawohonis West Southerner 
Wunkiwikwotank West he visited

V, 13. ". . . there to divorce ourselves from those who dwell together in another direction to the south."

[Wunpakitonis (*wənc-* 'direction there' and cp. *mpakkiiituun* 'I throw it away'), wunshawohonis (*wənc-* 'direction there' and *šaawanéew* 'south'), wunkiwikwotank (*wənc-* 'direction there' and *wiikku* 'he lives there' and reciprocal suffix *in-ttu*).]

Pictograph: This symbol shows that the relation between this Lenape chief⁴⁴ and the tribes⁴⁵ to the southwest and northwest¹⁹ were severed by the two separation clefts.¹²

Comment: This may refer to the fact that there were two groups of Delaware existent in Big Beaver's time; one group on the White River and a second, referred to in verse 14 below, in the Talega country.

14. Pawanami — Rich Water turtle
 Sakimanep
 Taleganah — Talega R. at

67

V, 14. "Then One Who Experiences Supernatural Power was chief in the Talega country."

[Pawanami (cp. *mpabola* 'I get supernatural power from him' and *-iinam* 'to experience'), sakimanep (*saakkima* 'chief'), taleganah (*teelə-kíuuwe* 'foreign pine').]

Pictograph: To the left is a turtle totem sign² for a Lenape chief.⁴⁴ To the right a Talega⁷⁰ village²¹ is indicated.

Comment: The text suggests a general dwelling area of the Talega and does not explicitly give "river" unless the final *-h* of the last word in the text were to be regarded as a song abbreviation of *-hanee-k*.

15.	Lokwelend	Walker	xx8	68
	Sakimanep			
	Makpalliton	much warfare		

V, 15. "When Scattering Man was chief, much was destroyed."

[Lokwelend (*laxwéhelee* 'it is scattered' and *-nnu* 'man'), sakimanep (*saakkiima* 'chief'), makpalliton (*max-* 'big' and *pal-* 'to destroy', as in *políituun* 'he spoils, destroys it').]

Pictograph: This chief⁷⁴ is shown to be a traveler⁷¹ and connected with much war.⁷⁴

Comment: None.

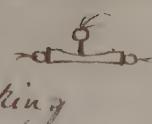
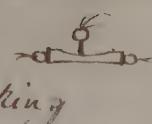
16. Lappitowaku again father Snake
 lappisinaku again Stone Snake 
 lappilowaku again North Snake

V, 16. "Once again they were near the snake clans of the Ottawa, of the Stonies, and of the Northerners."

[Lappituwaku (*lápi* 'again' and *tawéew* 'Ottawa' and *zkúuk* 'snake'), lappisinaku (*lápi* 'again' and *ahsín* 'stone' and *zkúuk* 'snake'), lappilowaku (*lápi* 'again' and *luuwanée* 'north' and *zkúuk* 'snake').]

Pictograph: Since this method of delineating these three tribes is not repeated in the Walam Olum, it is not possible to be certain of their identity, but there is every indication that they should be read from top to bottom: the Ottawa, the Stonies (does the circle at the end of the tail represent a stone?), and the Northerners. That they were all evil is revealed by the fanglike headdresses.²² (This is the second instance where figures in profile face away from the direction in which the glyphs are supposed to be read.) Below the Lenape chief's symbol²⁴ is the cross indicating war.⁷⁴

Comment: From this and the preceding line it appears that the Delaware villages in the south were destroyed and the occupants driven north (and west) by their enemies. Any rout of this sort would probably be minimized by Delaware historians. Possibly it is this exodus from the south to which Big Beaver referred in verses 11 to 13.

17. Mokolmukum - Boats grandfather  69
 Sakimanep 
 Mokolakolin - in boats he is making

V, 17. "When Master of Boats was chief, they went after the Snakes in boats."

[Mokolmukum (*múxuul* 'boat' and *moxíumsa* 'his grandfather'), sakimanep (*saakkíima* 'chief'), mokolakolin (*múxuul* 'boat' and *zkúuk* 'snake' and *li* 'in, in there'; cp. *muxíuluwe* 'he goes in a boat').]

Pictograph: This chief⁴⁴ in a canoe⁸ seems to be well occupied with the Snakes,⁶³ judging by their emblems at both ends of his boat.

Comment: Snakes here might mean the Iroquois. The term *na.dowe* or *snake* is applied to the Iroquois by the Shawnee and other Algonquians.

18 Winelowick Snow hunter 20
 Sakimanep
 Lowushiakiang. North ushki land going.
 Lowushki are ciquimau

V, 18. "When One Who Hunts While It Snows was chief, they returned from the north to the south land."

[Winelowick (*wíine* 'it is snowing' and *ehalaéecii* 'hunters'), sakimanep (*saak-ktima* 'chief'), lowushiakiang (*luuwaniišaawanée* 'north and south' and *-aaki* 'land' with locative ending in *-nk*; cp. *leheluuwanéekkehelaak* 'Eskimo').]

Pictograph: The snow glyph¹⁵ clearly suggests this chief's⁴⁴ name. The tribe⁴³ is pictured in the act of walking or traveling.⁷¹

Comment: The name of the chief in this verse also indicates that the Delaware, after being driven from the south, made a fairly long journey north to regions well known to their ancestors. After having defeated some of the northern groups the Delaware, perhaps feeling that they were now better able to deal with enemy tribes, again moved southward.

19. *Linkwekinuk* - Looking well about, thoughtful
Sakimanep - Chief
Talegachukang - Alleghany Mts going

V, 19. "When One Who Looks On was chief, they went to the Talega Mountains."

[Linkwekinuk (*linkweexiinuk* 'they look on'; cp. *ntslinkweexiinm* 'I observe it'), sakimanep (*saakkiima* 'chief'), talegachukang (*teels-kúuwe* 'foreign pine' and -*aaxwee-* 'to go, walk' and -*aunkee* 'hill, mountain').]

Pictograph: The eye symbol²³ refers to the Lenape chief's⁴⁴ name, while the semicircle to the east¹⁹ depicts the rolling land⁴² of the Talligewi.⁷⁰

Comment: This gives us some hint that the Talligewi were at this time living in a fairly mountainous region; in other words somewhere south of the Ohio River.

20.	Wopalawikwan	East Settling place	72
	Sakimanep.		
	Waptalegawing	East of talega at	

V, 20. "When One Who Dwells In Half Daylight was chief, they were already east of the Talega land . . ."

[Wopalawikwan (*óppan* 'it is daylight' and *laaii-* 'midway' and *wíikku* 'he lives there'), sakimanep (*saakkiima* 'chief'), waptalegawing (*wehencióóppank* 'east, where it is usually light' and *teela-kíuwe* 'foreign pine', with locative ending in *-nk*).]

Pictograph: This Lenape chief,⁴⁴ whose square body may stand for a dwelling,²¹ is shown to be east¹⁹ of the rolling land⁴² of the Talligewi.⁷⁰

Comment: This may mean that the Delaware, either voluntarily or because of the superiority in arms of the Talligewi, had been forced across the Alleghenies into the piedmont area on the eastern side of the mountains.

21.	Amangaki	Large land	L
	Amigaki	Long land	
	Wapakisinep	Eastland was	

V, 21. ". . . in an extensive country; and there for a long time they were to remain in this eastern stony land . . ."

[Amangaki (*amank-* 'great' and *-aaki* 'land'; cp. *amankhákki* 'big land'); amigaki (*amiik* 'long time' and *-aaki* 'land'), wapakisinep (*wehencióppank* 'east' and *-aaki* 'land' and *ahsón* 'stone').]

Pictograph: The square expresses great size,²⁹ the vertical parallelogram power,⁵¹ the horizontal line in the central part of the figure points to the east,¹⁰ while the tribal mark of the Talligewi tops the device.⁷⁰

Comment: The entire Atlantic coast line from Labrador south to the Carolinas was, in early historic times, occupied by Algonquian-speaking peoples. From their reference to the land being stony it would seem that the Delaware, after crossing the Alleghenies, lived in the piedmont area, rather than on the coastal plain, at a point fairly far south in the Algonquian coastal belt.

22. Mattakohaki	Without snake land
Mapawaki	there is rich land
Mawulitenol	there is good thing

V, 22. "... which did not belong to the Snakes: it was a good land and a rich land."

[Mattakohaki (*máttá* 'not' and *xkúuk* 'snake' and *hákki* 'land, earth'): mapawaki (*ahóoppuwaaki* 'rich land'; cp. *ahooppéeyu* 'he is rich'), mawulitenol (cp. Ojibwa *imaa* 'there' and Delaware *woláttenu* 'it is good').]

Pictograph: The elements of this glyph represent a hilly land⁴² to the west¹⁹ and flat lands⁴¹ with heavy vegetation.⁷² The Snake sign⁶³ below the ground line indicates their death or absence.¹⁷

Comment: A good land and a rich land would probably mean a land that had a temperate climate and abounded in wild game and wild plant products. For although the Delaware were by this time practicing agriculture, it will be noted that the growing of crops is not particularly stressed. The fact that this "good" country did not belong to the Snakes would also seem to indicate that it was situated south of their northern enemies.

23. *Gikenopalat* — Great Warrior  7³
Sakimanep
peekochiluwān — Near north

V, 23. "When Trail Marker was chief, they came to dwell at places which were nearer to the north."

[Gikenopalat (*kikminóoluwak* 'they put up a marker on the trail to guide them on their return'; cp. *iiláok* 'brave warriors'), sakimanep (*saakkima* 'chief'), peekochiluwān (*paa-* beside *pee-* 'to come'; cp. *-hik* 'abode' and *kiixki* 'close by'; and *luuwanée* 'north').]

Pictograph: The Lenape chief⁴⁴ is in the attitude of prayer.⁵² The direction mark on the square dwelling or village glyph²¹ points to the north.¹⁹

Comment: The movement here is definitely from south to north, which would seem to verify our surmises concerning the locations mentioned in verses 20-22.

The text, with its reference to putting a marker on the trails, suggests that at this point in the narrative the tribe was not following the well-worn narrow trails which would be used in friendly territory but instead was going into the wilderness where scouts would show possible routes by significant marks; such cautious or war-like activities were generally accompanied in the Eastern Woodlands by ritual and prayer.

24. *Saskwihanang Susquehanna (branchy R) at
Hanaholend — River living
Sakimane* ...

74

V, 24. "When they were along the Susquehanna, River-Bird Man was chief."

[Saskwihanang (*siiskonáhane* 'Susquehanna River': *siisku* 'mud', *-hanee-k* 'river'), hanaholend (*-hanee-k* 'river' and *-ehelee-* 'fowl' and *-nnu* 'man'), sakimane (*saakkiima* 'chief').]

Pictograph: A Lenape chief⁴⁴ and a river⁵⁵ flowing to the east¹⁹ are here represented above a ground line.³¹ The triangle may denote either a mountain⁴⁸ or that all was peaceful,²⁸ probably the former, because the apex is more acute than the usual peace glyph.

Comment: If this is the same river known today as the Susquehanna—and there seems little reason to doubt that it is—the Delaware can at last be definitely located.

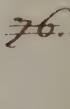
25. *Gattawisi* - *Becoming fat*  75
Sakimanep
Winakwkging *Sassafras land at*
or Pennsylvania

V, 25. "When One Who Becomes Fat was chief, they were in the sassafras country."

[*Gattawisi* (*kahtawíisu* 'he becomes fat'; cp. *nkattawíisi* 'I will be fat', *nawíisi* 'I am fat'), *sakimanep* (*saakkíima* 'chief'), *winakwkging* (*wiinaakw* 'sassafras tree' and *-aaki* 'land', with locative ending in *-nk*).]

Pictograph: In the usual order, this figure suggests a Lenape chief,⁴⁴ a sassafras tree,⁵⁷ and the triangle, as in the former pictograph, a mountain⁴⁸ or possibly peace.²⁸

Comment: The sassafras tree has a wide distribution from Maine and southern Ontario to Iowa, south to Florida and west to Texas, but is not a tree found on the seacoast.

26. Wemelowichik — all Hunters 26.
 Gishikshawipek Sun salt sea 
 Lappikichipek again big sea 

V, 26. "All the hunters were approaching the large body of water where the sun rises from the water."

[Wemelowichik (*wéemi* 'all' and *ehalaéecii* 'hunters'), gishikshawipek (*kišuuxa-wíippeekw* 'sun water'), lappikichipek (*lápi* 'again' and *kicii-* beside *kiitt-* 'big' and *-appeekw* 'body of water'; cp. *meexaalíikkamiik* 'ocean').]

Pictograph: The triangle and ground line indicate the eastern seaboard.¹⁴ Many¹ of the Lenape tribe are there.⁴³ The rising sun⁶³ appears in the east.¹⁹

Comment: An eastward movement of one part of the tribe at least is plainly indicated. It will be remembered that in Book II it was the hunters who were accorded the greatest prestige; in the line above it is this group which forms the vanguard for the eastward movement.

27. *Makhiawip* — Red arrow
Sakimanep —
Lapihaneng — tidewater at



26

V, 27. "When Red Arrow was chief, they were so far downstream that tides could be felt."

[Makhiawip (*maxk-* 'red'; cp. *máxksu* 'he is red'; and *-iip* beside *alúuns* 'arrow'; cp. *wíip* 'his arrow'), sakimanep (*saakkíima* 'chief'), lapihaneng (*lápi* 'again' and *-hanee-k* 'river', with locative ending in *-nk*).]

Pictograph: The drawing of the arrow with the line showing relationship⁵ to the chief⁴⁴ corroborates the text regarding the name. The incompletely parallelogram probably means flat land.⁴¹

Comment: Evidently the Delaware were traveling downstream not on the Susquehanna, but on some river which drained into the Atlantic. This may have been the present-day Delaware River itself.

28. Wolumenap - Hollow man
 Sakimanep
 Mašekitong - Strong falls at Trenton

27

V, 28. "When Red-Paint Soul was chief, they were at the mighty water."

[Wolumenap (*ooláman* 'Indian paint, red paint' and *-aappee-y-* 'human characteristic, soul'), sakimanep (*saakkíima* 'chief'), maskekitong (cp. Ojibwa *maškawisi* 'he is strong' and *-iitan-e-* 'body of water'; cp. *ciittanínkpi* 'strong water').]

Pictograph: The circle within a circle shows this Lenape chief⁴⁴ as a very brave one.⁶ The curved lines to the right seem to be a water glyph. (See IV, 39; V, 50.)

Comment: By this time the Delaware have reached the coast, presumably at the mouth of the river mentioned in line 27. Several of the chiefs' names in this book (One Who Writes, line 5; Trail Marker, line 23; Red-Paint Soul, line 28) serve to emphasize the importance the Delaware attributed to the records which they had learned to keep.

29. Wapanand — the Wapanand or Easter
 Tume wand the Wolves (Mohigan) 
 Waplowaan East North to go.

V, 29. "While the Eastern men and the Wolf men faced both east and north, . . ."

[Wapanand (*wehenciōppank* 'east' and *-nnu* 'man'), tumewand (*tōmeeuw* 'wolf' and *-nnu* 'man'), waplowaan (*wehenciōppank* 'east' and *luuwanée* 'north').]

Pictograph: The restless (traveling)⁷¹ spirits of the Lenape⁴³ of hallowed²⁰ memory (the figures at either end of the bond line)⁵ caused some of the tribesmen to go north and some northeast.¹⁹

Comment: Evidently the group was divided into at least two factions, one of which favored remaining in the east, the other, moving north.

30. *Wulitpallat* *Good warrior*  78
sakimanep
piskwilowan *against north*

V, 30. "... One Who Destroys Good Things became chief, and went straight north."

[*Wulitpallat* (*wəlɪtənū* 'it is good' and *pal-* 'to destroy', as in *polītuun* 'he spoils, destroys it'), *sakimanep* (*saakkíima* 'chief'), *piskwilowan* (*tpəskwi-* 'right straight through' and *luuwanée* 'north').]

Pictograph: The X part of this chief's glyph⁴⁴ reveals something connected with war.⁷⁴ The vertical mark on the figure portraying the Lenape on the right indicates the north¹⁹ and the length of the body, power.⁵¹

Comment: The northern, and if we are to judge by the chief's name, the more warlike group attains leadership.

31. *Malhungwi* - there Hung (Mengwi) for lickings
Pungelika - Lynx wildlike (Erie). 
weminungwi - all trembling 

V, 31. "All the Seneca and the Disgusting Wildcats trembled."

[Mahungwi (*menkwéeyok* 'Seneca Indians'), pungelika (cp. *púušis* 'cat', *cink-wéeyok* 'wildcats'; and pejorative suffix in *-aalakh-iitti*: the 'Disgusting Wildcats' are perhaps another Iroquois tribe, neighbors of the Seneca), weminungwi (*wéemi* 'all' and *nankihileew* 'he trembles').]

Pictograph: Two of the Iroquois³⁸ are shown frightened and trembling (the wavy line)²⁴ on account of calamity (the straight transverse line).⁷

Comment: The Seneca, in historic times, occupied the western part of New York state. West of them was another Iroquoian group, the Erie or "people of the panther [or wildcat] nation." The Erie were once a numerous Great Lakes-Ohio Valley group, but are now extinct. It is highly probable that the "Disgusting Wildcats" mentioned above were the Iroquoian-speaking Erie.

32. *Lappitamenend* *Ag-in Tamenend* 79
Sakimanepit King was there
Wemilangundit with all made peace



V, 32. "When another Wolf man was made chief, all kept peace with each other . . ."

[*Lappitamenend* (*lápi* 'again' and *tómeew* 'wolf' and *-nnu* 'man'), *sakimanepit* (*saakkima* 'chief'), *wemilangundit* (*wéemi* 'all' and *wəlankúntuwak* 'they keep peace with each other').]

Pictograph: The triangle of peace²⁸ occurs in this ideograph. The two lines down the front of the Lenape chief's⁴⁴ body may represent the front legs of a wolf² and the curved back helps suggest that animal seated on his haunches. The three-lined base for the chief is unique and probably means he was a very important person. In ancient Chinese pictography, three parallel horizontal lines indicated heaven, earth, and humanity.

Comment: Succession to the chieftainship would seem to have alternated from one group of Delaware to another. Possibly this parallels Shawnee custom; in the latter tribe the head, or tribal chief, may be selected from either one of two Shawnee divisions.

33. Weminitis all friendly
 Wemitakwicken all united
 Sakimakichwun with this great ring



V, 33. ". . . and all were friends: therefore, all were joined together near this chief."

[Weminitis (*wéemi* 'all' and *níttis* 'my friend'; cp. *nníccaan* 'my child'): wemitakwichen (*wéemi* 'all' and *tahkw-* 'union', as in *tahkoppuháala* 'he is married', *tahkwiixkshíikkan* 'horse hobble', *tahkóhonee* 'junction of two rivers'), sakimakichwun (*saakkiima* 'chief' and *kíixki* 'near by').]

Pictograph: A four-quarter emblem²⁷ showing all bound together²⁸ in a sacred²⁹ fashion under this chief.

Comment: If the Delaware were composed of two or more semiautonomous divisions (as were the historic Shawnee), it is very likely that a considerable amount of rivalry existed between the various Delaware groups. Under a wise head chief, this rivalry would be reduced, at least temporarily, to a minimum.

[There are no verses numbered 34 and 35 in Rafinesque's notebook.]

36. *Kichitamak* *Great beaver* 80.
Sakimanep
Winakununda *Sassafras tarry.*



V, 36. "When Big Beaver was chief, they were in that sassafras region."

[Kichitamak (*kicii-* beside *kiit-* 'big' and *tomaakw* 'beaver'), sakimanep (*saak-kiima* 'chief'), winakununda (*wiinaakw* 'sassafras tree' and *náni* 'that').]

Pictograph: Chief⁴⁴ Beaver² was powerful (tall body)⁵¹ in the sassafras region (tree glyph).⁵⁷

Comment: (See also V, 25). Mention once again of the "sassafras region" indicated that the Delaware had again moved inland. Cp. comment for V, 25.

37	Wapahakey	White body	81
	Sakimanep		
	Sheyabian	Shore (or Jersey) going.	

V, 37. "When One Who Makes Himself White was chief, they were at the shore near the water."

[Wapahakey (*oopp-* 'white' and reflexive ending in *-hakee-*), sakimanep (*saak-kiima* 'chief'), sheyabian (*ʃéhpe* 'shore near water').]

Pictograph: The triangle and ground line are emblematic of the eastern¹⁹ seaboard.¹⁴ Upon it stands a Lenape chief.⁴⁴

Comment: Removal from the inland to the coast locations and vice versa seems not to have involved any long migrational movements. This would indicate that the "sassafras land" referred to above was probably in eastern Pennsylvania. Such removals may have been occasioned by too-frequent Seneca raids upon the Delaware, or by the latter tribe's preferences in regard to wild foods at certain periods.

38. Elangomel - friendly to all 82
 Sakimanep
 Makeliwulit - much good done

V, 38. "When One Who Keeps Peace was chief, good things were plentiful."

[Elangomel (*wolankom*- 'to keep peace'), sakimanep (*saakkiuma* 'chief'), makeliwulit (*maxeel*- 'much' and *wolsttuu* 'it is good').]

Pictograph: A double meaning of this chief's sign⁴⁴ may be derived from this pictograph. The part to the right shows a land⁴¹ with much vegetation,⁷² and the whole figure suggests a pipe of peace.

Comment: The Middle Atlantic Coast offered, of course, an abundance of sea food and wild fowl which the Delaware could draw upon for subsistence; added to this, during a period of peace and settled existence would be the products of the Delaware gardens.

39. *Pitenumen* *Mistaker*  83
Sakimanep
Unchihillen *coming from somewhere*

V, 39. "When One Who Takes Things By Accident was chief, there came from yonder . . ."

[Pitenumen (cp. *mpitənómən* 'I take it by accident, by mistake'), sakimanep (*saakkīma* 'chief'), unchihillen (*wəncihilee* 'it comes from there').]

Pictograph: The two horizontal lines extending to the left of this Lenape chief's⁴⁴ symbol probably represent sight⁶⁰ and speech.⁶⁴ The line to the right may be an adaptation of the old sign language for confusion or dementia (Tomkins, *Universal Indian Sign Language*, 22; James, *Account of an Expedition from Pittsburgh to the Rocky Mountains*, I, 279; and Clark, *The Indian Sign Language*, p. 131), or from the text we may deduce that it means "rolling in from the east."¹⁹ The same kind of an involute curve was used by the Egyptians and primitive Chinese to express turn, roll, revolve, or return. *Encyclopædia Britannica* (14th ed.), XI, 545; Wieger, *Chinese Characters*, p. 198; Wilder and Ingram, *Analysis of Chinese Characters*, p. 24.

Comment: None.

40. Wonwihil ... at the time
 Wapekunchi ... East Sea from
 Wapsipayat ... Whiteres coming



V, 40. "... persons floating in from the east: the Whites were coming."

[Wonwihil (*awéen* 'person' and formative used in verbs of motion, *-ihilee-*), wapekunchi (*wehenciōppank* 'east' and *wənci-* 'direction, from there'): wapsipayat (*oopp-* 'white' and formative in *-su*; and cp. *páatte* 'he comes').]

Pictograph: The parts of this figure involving the curve represent the eastern¹⁹ seaboard,¹⁴ and the ocean, the other portion, capped with the cross, indicates the ships of the Whites.⁷⁰

Comment: Under the chronology adopted in this study, it is indicated that this casual visitation of white people coming in ships from the east occurred around the opening of the sixteenth century. (The reference may, therefore, be either to Verrazano, the Italian navigator, or to another Italian navigator, John Cabot who, while in service for the English, made a voyage to North America in 1497.) See discussion, *post*, pp. 275, 276.

41. Makelomush Much swampland 85
 Sakimanep -
 Wulatenamen - to be happy

V, 41. "When Much In The Swamp was chief, they were happy."

[Makelomush (*maxeel-* 'much, many' and *mášku*; cp. Ojibwa *maškiikonk* 'in the swamp'), sakimanep (*saakkiima* 'chief'), wulatenamen (*wəlaatéenamu* 'he is happy').]

Pictograph: Working back from the name of this chief⁴⁴ in the text, it might be justifiable to call the short horizontal line in his glyph a cleft¹² separating him from his dwelling (the small square). A bond of relationship⁵ attaches him to a prosperous⁵⁵ village.²¹

Comment: All reference to the white visitors who appeared from the east is dropped; the tenor of Delaware life seems to have been little affected, and a period of peace marked the rule of this chief.

42 Wulakeningus - Well praised
 Sakimanep
 Shawanipalat - South warrior

86

V, 42. "When One Who Buries The Dead was chief, they destroyed things in the south."

[Wulakeningus (*waliixam-* 'to bury dead'), sakimanep (*saakkíima* 'chief'), shawanipalat (*šaawanéeyunk* 'to the south' and *pal-* 'to destroy').]

Pictograph: In the Walam Olum the placement of a glyph below the ground line³¹ signifies either death¹⁷ or south.¹⁹ The text has to be depended upon to differentiate. In this case the position of the Snake⁶³ or evil²² glyph below the ground line may mean both. Since this chief⁴⁴ was One Who Buries The Dead, perhaps a part of his body was drawn below the line to suggest his connection with death, although it may indicate a calamitous war.⁷ The chief is shown walking or traveling,⁷¹ and he is separated from the enemy by a cleft.¹²

Comment: The name of this chief probably refers to the fact that the chief served as a director at funeral services. There is a possibility, however, that the Delaware may have radically changed their method of disposal of the dead at this time, and that inhumation was first generally practiced under the chief referred to above.

43. Otaliwako	There Snakes or Otali, cheruti,
Akowetako	Concava Snakes
Ashkipalliton	Must make War 

V, 43. "Snakes were over there and Snakes were in the shady place where they were destroying things anew."

[Otaliwako (*ootaleeyáxkuuk* 'snake is over there'), akowetako (*xkúuk* 'snake' and *teháako* 'shady place'), ashkipalliton (*ask-* 'fresh, new' and *políituun* 'he spoils, destroys it').]

Pictograph: War (X)⁷⁴ with villages²¹ of Snakes⁶³ of divine²⁰ power is indicated by this figure.

Comment: The Snakes, long-standing enemies of the Delaware, again become aggressive, both to the south of the Delaware (verse 42) and to their north, in the "shady place." Verse 42 would indicate that at this time the Delaware left their seacoast location and again moved south, in order to make war upon their enemies.

W. Wapagamushki White Otter 86
 Sakimanep
 Lamatanitis Lamatinis (My) friend

V, 44. "When White Otter was chief, they were friends of the Iroquois."

[Wapagamushki (*ooph-* 'white' and *kwimáxk* 'otter'), sakimanep (*saakkiima* 'chief'), lamatanitis (*teeləmanótu* 'Iroquois' and *niittiis* 'my friend').]

Pictograph: The sketch of the otter² tells this chief's⁴⁴ name. A bond of relationship⁵ exists between him and the Iroquois,³⁸ whose usual tribal glyph appears in the upper right-hand part of the pictograph.

Comment: Whether this refers to the Iroquois proper, or to the Cherokee, also an Iroquoian-speaking people, is not clear. The Cherokee, who were the most southerly of the historic Iroquoian tribes, would be the more likely group.

45. Wapashum	White bighorn		87
Sakimanep			
Talegawunkik	Talega West visitor		

V, 45. "When White Horn was chief, they were in the region of the Talega Mountains . . ."

[Wapashum (*oopp-* 'white' and *šmuwak* 'horns'), sakimanep (*saakkima* 'chief'), talegawunkik (*teels-kúuwe* 'foreign pine' and *-aunkee* 'mountain').]

Pictograph: The triangle is the mountain glyph,⁴⁸ while the body of the chief⁴⁴ is shaped like a horn. The dot in the chief's sign denotes that he is of hallowed memory.²⁰

Comment: Having moved south to fight against the Snakes, the Delaware stay in the south during the chieftaincies of White Otter and White Horn.

The names of these two chiefs are of interest for their probable reflection of an old and widespread belief. Many tribes hold that each of all the different species of animals has its own chief; this animal chief is usually larger than an ordinary animal, or pure white, or both. In the Walam Olum many of the chiefs listed are, appropriately enough, named for certain animal "chiefs." Thus in Book V alone we find the following: White Wildcat (verse 3); Big Beaver (verses 11 and 36); White Otter (verse 44); White Horn (verse 45), and White Frog (verse 57).

46. Mahiliniki There was *hileni*
 Mashawoniki there was *Shawnee* 
 Makonowiki there was *konowi*

V, 46. ". . . and there also were the Illinois, the Shawnee, and the Conoy."

[Mahiliniki (cp. Ojibwa *imaa* 'there' and Shawnee *hileni* beside Delaware *l̄nu* 'man, member of the Illinois Confederacy'), mashawoniki (cp. Ojibwa *imaa* 'there' and Delaware *šáawmū* 'Shawnee'), makonowiki (cp. Ojibwa *imaa* 'there' and *konowi-*, probably a tribal name before the plural suffix in *-ki*).]

Pictograph: A glyph for the Shawnee appears twice in the Walam Olum, a short, downward, vertical line, probably indicating the south (see V, 10). Thus it may be presumed that the lower left circle represents that tribe. The glyph at the top suggests the Illinois (with direction mark toward the west)¹⁹ and the lower right-hand figure, the Conoy. This order fulfills the counterclockwise circle of the Lenape ritual. The dots in the tribal symbols show that they were of hallowed memory.²⁰

Comment: The Illinois, at the opening of the historic period, were living north of the Ohio in the present state of Illinois. How they could have been associated with the Delaware in the Talega Mountains is by no means clear. The Shawnee and the Conoy, on the other hand, both had intimate contacts with the Delaware in early historic times, and it is more than likely that such contacts had been established long before the opening of the historic period.

47. *Nitispayat* Friend coming 88
Sakimanep Chief
Kipemapekan Big Lake going

V, 47. "When Friend Who Comes was chief, they were at a long land-locked lake . . ."

[Nitispayat (*níittiis* 'my friend' and *páat* 'he comes'), sakimanep (*saakkiima* 'chief'), kipemapekan (*kəpp-* 'to close, shut' and *-aamee-* 'extension along a line' and *-əppeeckw* beside *-əppeeckk-at* 'body of water').]

Pictograph: The elements of this figure in order from the left are: a body of water,⁷⁵ a flat land,⁴¹ Iroquois,³⁸ and a Lenape chief⁴⁴ in motion.⁷¹

Comment: Possibly a reference to Lake Erie. The names of the tribes mentioned in the preceding and succeeding verses would indicate that contacts were being maintained with tribes which we know were located near or south of Lake Erie in early historical times.

48.	Wemiamik	all children (Miami)
	Weminitik	all friends or allies
	Kiwikhotan	Visiting

V, 48. "... where all their children and their friends visited them."

[Wemiamik (*wéemi* 'all' and *miimó̄nsak* 'children'), weminitik (*wéemi* 'all' and *niittíisak* 'my friends'), kiwikhotan (cp. *kiiyúikkee* 'he visits').]

Pictograph: The Northerners (emblem to left)³⁸ bound by common ties⁵ (the upper horizontal line) with children (group of short vertical lines)¹⁰ are shown to be traveling (angle below ground line).⁷¹ The line binding the Northerners together probably should only connect the two figures, not be struck through them, for there is nothing in the text indicating calamity.

Comment: The Delaware refer to the following tribes as their "grandchildren," and are in turn called grandfather by them: Shawnee, Potawatomi, Sauk, Fox, Ioway, Tonkawa, Sioux, Ottawa, Kickapoo, Miami, Peoria, Chippewa, Menomini, and Winnebago.

49.	Gakkinitzin	Cranberry-eating		89
	Sakimanep			
	Tawanitip	Ottawas made friend		

V, 49. "When One Who Eats Cranberries was chief, they were friends of the Ottawa."

[Pakimitzin (*páakkium* 'cranberry' and *mítsi* 'he eats'; cp. *nemíccuin* 'I eat it'), sakimanep (*saakkiima* 'chief'), tawanitip (*tawéeyok* 'Ottawa Indians' and *níittiis* 'my friend').]

Pictograph: The small circle to the left of the figure of the chief⁴⁴ represents a berry.⁴ A bond of close relationship⁵ ties him to the Snakes.⁶³

Comment: Presumably the Delaware moved far enough north to contact the Ottawa, a Great Lakes group. The chief's name substantiates such a surmise; cranberries are a wild fruit having a distribution from Maine to Wisconsin, and south to New Jersey and the southern shores of the Great Lakes.

50. Lowapunshan - North Walker 90
 Sakimanep
 Ganshuwenik - nutty place (Niagara)

V, 50. "When Walking In The North was chief, they were at the rushing waters."

[Lowapunshan (*luuwaniipomóskee* 'he walks in the north'), sakimanep (*saakkúima* 'chief'), ganshuwenik (*kaanšawée-* 'to rush from place to place').]

Pictograph: This Lenape chief⁴⁴ is pictured in the act of walking⁷¹ in the north (by position above line).¹⁹ The bowl-shaped figure is the usual one for a body of water,⁷⁵ and the curved lines to the right have some aquatic significance (see IV, 39; V, 28).

Comment: The northerly location of the Delaware during this period is again indicated in the chief's name.

51. *Tashawinso* at *leisure gathering* 91
Sakimanep:
Shayabing — at *New Jersey or shore*

V, 51. "When One Who Lives Yonder was chief, they were at the shore near the water."

[Tashawinso (cp. Ojibwa *taši* 'there' and Delaware *-aaw-su* 'to live'), sakimanep (*saakkima* 'chief'), shayabing (*šóhpé* 'shore near water' and locative suffix in *-nk*).]

Pictograph: The chief⁴⁴ illustrated here lived on the eastern¹⁹ seaboard.¹⁴

Comment: This would seem to indicate a location on one of the Great Lakes—possibly Lake Erie, if we consider the statement made in verse 53.

52. *Vakhagattamen* 3 defining
Nakhalissin 3 to be
Wenchikit offspring

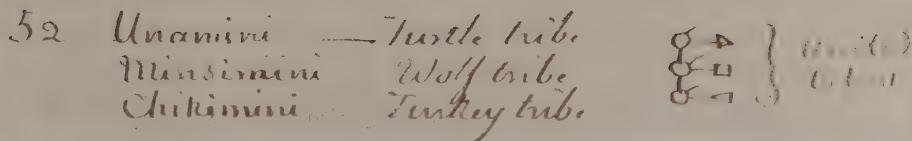
(There is a double sign or 2 vers in one)

V, 52[a]. “They wanted to divide into three divisions with each of the three to follow its own customs, dating from the time that each was created . . .”

[Nakhagattamen (*naxá* ‘three’ and *kaht-* beside *-katt-* ‘to desire’, with transitivizer in *-mən*), nakhalissin (*naxá* ‘three’ and *-ləsu* ‘to be’), wenchikit (*wənciikkuit* ‘where, whence he was born’).]

Pictograph: This figure means that the three sections of the Lenape⁴³ bound together in close relationship (as shown by the horizontal line near the bottom)⁵ became more independent of each other (as indicated by their being separate from each other in the top part of the glyph).

Comment: Early historic sources record that the Delaware were organized in three groups. In previous books of the Walam Olum we have had vague hints of a tendency, at least, toward a tri-partite division of the tribe, but here, relatively late in Delaware history, is the first explicit reference to the three divisions. A similar separation of a tribe into several divisions, each of which had slightly different customs and each of which claims a different origin, holds true for the Shawnee.



V, 52[b]. ". . . the Unami, the Munsee, and the Turkey divisions."

[Unamini (a divisional name no longer used by the Oklahoma Delaware), Minsimini (*mínhsi* 'Munsee division or dialect of Delaware'; cp. *mohomunhšiyyu* 'he speaks Munsee'), chikimini (*cíkkánəm* 'Turkey division of the Delaware').]

Pictograph: It is almost certain that the totems of the three Lenape⁴³ divisions are shown in this pictograph. Reading from the top downward, these would represent the Turtle clan, the Wolf clan, and the Turkey clan, linked with bonds of relationship.⁵

Comment: The historic sources usually give the names for the three Delaware divisions as the Unami, the Munsee, and the Unalachtigo. Efforts to identify the third group, which is no longer extant, have not been entirely successful. Speck suggests that the Unalachtigo were the "Naraticons" of southern New Jersey. Mention of this dubious Delaware group is not given in the Walam Olum, but a third group, the Turkey, is referred to as comparable to the Unami and Munsee divisions. However, among the historic Delaware (Unami division) the Turkey group is one of three social subdivisions of the political group, the two other social subgroups being the Tortoise and Wolf.

53. Epallahchund Tailer, who fails 92
 Sakimanep 
 Mahongwipallat Menkwi war 

V, 53. "When One Who Fails At Water's Edge was chief, they destroyed things belonging to the Seneca."

[Epallahchund (*yaappée* 'edge of water' and *alaíhilee* 'he fails'), sakimanep (*saakkiima* 'chief'), mahongwipallat (*menkwéeyok* 'Seneca Indians' and *pal-* 'to destroy').]

Pictograph: The horizontal line through the traveling⁷¹ Lenape chief's⁷² body indicates calamity,⁷ and war (X)⁷⁴ with the Iroquois (figure to right)⁷⁵ is disclosed.

Comment: None.

54. *Langumuwi* Friendly he  93
Sakimanep
Mahongwichamen Mengwi, frightened

V, 54. "When Friendly One was chief, he played with the Seneca."

[Langumuwi (*wəlankum-* 'to be friendly'; cp. *wəlankuntuwáakkan* 'friendship'), sakimanep (*saakkíima* 'chief'), mahongwichamen (*ménkwe* 'Seneca' and *cam-* 'to play with'; cp. *caaccəmíhileew* 'he flirts').]

Pictograph: Here is pictured a powerful (long body)⁵¹ Lenape chief⁴⁴ in close relationship (the connecting line first above the ground line)⁵ with the Iroquois.³⁸ It is reasonable to believe that the upper horizontal line, struck through the Iroquois glyph, indicates calamity to them.⁷

Comment: Despite his name, Friendly One's contacts with the Seneca were probably hostile ones. To "play" with another tribe means to make war against it in the phraseology of the Shawnee, who have many metaphorical expressions connected with warfare.

55. Wangomend ... Saluted.
 Sakimanep —
 Ikalawit yonder between



94

V, 55. "When Man Who Greets Others was chief, they went yonder . . ."

[Wangomend (*wənkuum-* 'to greet, shake hands' and *-nnu* 'man'), sakimanep (*saakkiima* 'chief'), ikalawit (*ikali* 'yonder' and cp. *āattam* 'let us go').]

Pictograph: A traveling⁷¹ Lenape chief⁴⁴ is depicted between glyphs representing the Lenape tribe.⁴⁵

Comment: The name of this chief probably reflects one of the rules of Delaware courtesy. A chief, particularly, is always supposed to greet everyone. The modern Delaware, like the Shawnee, have a specific code of politeness as regards greetings, which includes formal handshaking.

56. O_ota- liwi
Chewlikis of Otti
 Wasiotowi *W_offit_u W_oniw_o* 
 Shingalusit *foes*

V, 56. ‘. . . over on the other side of the Scioto River among the ones whom they hated.

[Otaliwi (*ootaláé* ‘over on the other side’; cp. *ootalaúnkwe* ‘over the mountain’), wasiotowi (cp. present-day river name, *wašitaii-*, as in *wašitaiilənaappéeyok* ‘Delaware group on Washita River’; or another river name, *wa-sioto-wi*), shingalusit (*šink-* ‘to hate’; cp. *nšinkáala* ‘I hate him’, *šinkaalkw̄su* ‘he is hateful’).]

Pictograph: The double-plumed figures are Snakes⁶³ with divine²⁰ power. The enclosed X represents hate.³²

Comment: The river now known by this name flows in a north-south direction, through central Ohio. In the eighteenth century, the Shawnee settled along this river and its tributaries, while the Delaware were on the Muskingum in eastern Ohio, during the same period. Perhaps this line refers to raids which Delaware warriors engaged in west of the Scioto River. What tribe lived west of the Scioto, in western Ohio, is an enigma which, unfortunately, the Walam Olum does not answer in this verse.

57. Wapachikis ... White Crab
 Sakimanep
 Shayabnitii ... Shore friend

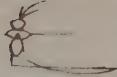
95

V, 57. "When White Frog was chief, they were at the shore."

[Wapachikis (*oopp-* 'white' and *cahkól* 'frog'), sakimanep (*saakkiima* 'chief'), shayabnitis (*ʃóhpé* 'shore near water' and *niittiis* 'my friend').]

Pictograph: Here is the glyph for the eastern¹⁹ seaboard.¹⁴ Probably the amphibian nature² of the Lenape chief⁴⁴ depicted is revealed both by his shape and by placing him upon the body of water rather than the land.

Comment: This line substantiates our premise that Delaware raiding parties, rather than the tribe as a whole, traveled as far inland as the Scioto River.

58. Nenachihat - Watcher  96
 Sakimanep
 Schlinkwekin - Sea looking

V, 58. "When Hawk was chief, they were looking at an expanse of water . . ."

[Nenachihat (*neenhihtípaas* 'chicken hawk'; cp. *típaas* 'chicken' and *nnéemən* 'I see it'), sakimanep (*saakkúima* 'chief'), peklinkwekin (*-sppeekw* 'body of water' and *linkwéexiin* 'he looks').]

Pictograph: The eye symbol²³ for this chief²⁴ is very appropriate since his name is Hawk. He is standing on the eastern¹⁹ seaboard,¹⁴ his line of sight or vision⁶⁰ extending out over the ocean.

Comment: None.

59. Wonwihil . at this time
 lowashawa . North & south
 wapayachik - white or last coming

V, 59. ". . . where persons were floating in from the north and from the south: the Whites . . ."

[Wonwihil (*awéen* 'person' and formative used in verbs of motion, *-ihilee-*), lowashawa (*luuwanée* 'north' and *šaawanéeyonk* 'to the south'); wapayachik (*oopp-* 'white'; cp. Ojibwa *wayaapiškiiweecik* 'the white people').]

Pictograph: This glyph shows the whites⁷⁹ of divine power,²⁰ marked by the crosses, arriving upon the eastern coast¹⁴ from the north and south (above and below the base line).¹⁹ Note the sun⁶⁸ toward the east.

Comment: Fourteen chiefs have been listed between the first casual appearance of white men in ships coming from the east (V, 40) and the second, more alarming influx of white visitors and settlers from all directions. According to the chronology used in this study, the second descent of the whites upon the Delaware occurred around 1625. This is an accurate enough reference to what was happening on the Middle Atlantic Coast during this period, in the way of numerous attempts by various European groups to establish settlements north and south of the Delaware. Like other internal evidence which has been discussed, this point offers additional proof concerning the reliability of the Walam Olum as a whole.

60. *Langumuwak friendly they
Kituhatewa - Big Ships or birds
Ewenikikitit? Who are they?*

V, 60. "... friendly people with great possessions: who are they?"

[Langumuwak (*wəlankum-* 'to be friendly'; cp. *wəlankíntuwak* 'they keep peace with each other'), kituhatewa (*kiitt-* 'big' and *háttee* 'it is there'); ewenikikitit (*awéeniik* 'persons'; and cp. the general interrogative *kicíik* and *-iikkiit* 'to be born, created', as in *wənciíkkiit* 'where he was born').]

Pictograph: The eastern¹⁹ coast glyph¹⁴ again, showing the ships of the whites⁷⁹ approaching. The two short horizontal lines from the symbol of the whites probably represent their sight⁶⁰ and speech.⁶⁴ The three lines pendent from the sea glyph indicate that peril³⁷ is absent.¹⁷

Comment: None.

Fragment

On the History of the Lingapis since abt 1600
when the Wallamolum closed.

Translated from the Lingapi — By John Burns

1. Hala, hala! we know now who they are, these
Waptinis (White men) who then came out of the Sea
to rob us of our land; Starving wretches! with smiles
they came, but soon became snakes or foes.

2. The Wallamolum was written by Lekhibit
(the writer) to record our glory. Shall I write
another to record our fall? No! our foes have
taken care to do it; but I shall speak to thee
what they know not or conceal.

3. We have had many Kings since that unhappy
time. They were 3 till the friend Mikwon (Penn)
came. Miknikum when the Winatiki (Swedes) came
to Winatiki (Pennsyl.) — 2 Naturmen (Racoon)
when the Sengahwi (Dutch) came — 3 Balkinap
or Spokahon (or Wopan) (Sharp-fighters) when the Yankwus (English)
came with Mitkwon soon after and his friends.

4. They were all well received and fed with corn;
but no land was ever sold, we never sold any. They

Fragment

On the History of the Linapis since abt 1600 when the *Wallamolum* closes.

Translated from the Linapi—By John Burns¹

1. Halas, halas! we know now who they are; these Wapsinis (White men) who then came out of the Sea to rob us of our land; starving wretches! with smiles they came, but soon became Snakes or foes.

2. The Wallamolum was written by *Lekhibit* (the writer) to record our glory. Shall I write another to record our fall? No! our foes have taken care to do it; but I shall speak to thee what they know not or conceal.

3. We have had many Kings since that unhappy time. They were 3 till the friend *Mikwon* (Penn) came. *Mattanikum*² when the *Winakoli* (Swedes) came³ to *Winaki* (Pennsylv.)—2 *Nahumen* (Raccoon) when the *Senalwi* (Dutch) came⁴—3 *Ikwhalon* (Sharp-fighter for Women) when the *Yankwis* (English) came⁵ with *Mikwon* soon⁶ after and his friends.

4. They were all well received and fed with Corn; but no land was ever sold, we never sold any. They

¹Unidentified. See *ante*, pp. ix–x, and *post*, p. 249.

²The page of Rafinesque's notebook facing this page is blank save for the following note at the bottom: “*Mattanikum*—was k[in]g in 1645, he is called Matta-horn by Holm, who by a blunder has made his name half Swede Horn is not Lenapi—but Natta nikum means No Horned Without horns, emblem of having little strength.” See Thomas Companius Holm, “A Short Description of the Province of New Sweden . . .,” translated by Peter S. Du Ponceau, in *Memoirs of the Historical Society of Pennsylvania*, III (1834), 154. Mattahorn’s son, according to Holm, was Agga Horn.

³1638. Rafinesque noted that Holm said that the Indians called the Swedes *Akhoutes* which in Lenape was *Akoli* “ugly” or “snakelooking.” The prefix *Win* in *Winakoli*, he added, might mean “the beings” or “snow.” On the other hand *Winakoli* may merely refer to those living in *Winaki*, the name for eastern Pennsylvania. *The American Nations . . .* (Philadelphia, 1836), p. 159.

⁴1655.

⁵1664.

⁶Penn came in 1682.

were all allowed to live with us, to build houses and plant Corn, as our friends and allies. Because they were hungry, and thought children of Sunland and not naked or children of Snakes.

5. And they were traders, bringing fine new tools and weapons and cloth and beads, for which we exchanged Skins and wampums. And we liked them and their things because we thought they were good, and made by children of Sunland.

6. But also they brought also Fire guns & Fire Water, which burned & killed. Also ~~bracelets~~ & trinkets of no use: since we had better ones.

7. And after Mikrown came the children of Dolgoe Sotima (King George) who said more land in a land we must have, and no limits could be put to their steps and increase.

8. But in the North were the children of Louis Sotima (King Louis) and they were our good friends, allies of our allies, foes of our foes; yet Dolgoe always wanted to war with them.

9. We had 3 Kings after Mikrown, ~~Wilkukhon~~ ^{Chukichu} (Fast Tomerend) ~~& Sastunam~~ ^{Our Uncle} and Tatami (Beaver taken). This last was killed by a Yankwako English Snake, and we vowed revenge.

were all allowed to live with us, to build houses and plant Corn, as our friends and allies. Because they were hungry, and thought children of Sunland and not Snakes or children of Snakes.

5. And they were traders, bringing fine new tools and weapons and cloth and beads, for which we exchanged Skins and wampuns. And we liked them and their things because we thought they were good, and made by children of Sunland.

6. But alas they brought also Fireguns & Fire Water, which burned & killed. Also baubles & trinkets of no use: since we had better ones.

7. And after *Mikwon* came the children of *Dolojo Sakima* (king George) who said more land more land we must have, and no limits could be put to their steps and increase.

8. But in the North were the children of *Lowi Sakima* (King Louis) and they were our good friends, allies of our allies, foes of our foes; yet *Dolojo* always wanted to war with them.

9. We had 3 kings after *Mikwon*. *Skalichi* or (Last Tamenend),⁷ 2 *Sasunam Wikwikhon* (Our Uncle builder)⁸ and 3 *Tatami* (Beaver taker). This last was killed by a *Yank-wako* English Snake, and we vowed revenge.⁹

⁷This is the famous Tammany, called "The Affable" by Heckewelder, best remembered and beloved of all Delaware. He deeded land in present Bucks County, Pennsylvania, to Penn in 1683. The deed is printed in Albert Cook Myers, *William Penn. His Own Account of the Leni Lenape or Delaware Indians 1682* (Moylan, Pa., 1937), pp. 88-90. Tamanend continued as chief until 1718. Joseph White Norwood, *The Tammany Legend (Tamanend)* . . . (Boston, 1938), p. 39.

⁸The successor of Tamanend. His name appears also as Sassoona or Allumpees. He died in 1747. Myers, *William Penn*, p. 86. Anthony F. C. Wallace describes him as chief of only the Unami division who lived on the Schuylkill, and says that in 1742 he was living as a guest of the Iroquois at Shamokin on the Susquehanna. *King of the Delawares: Teedyuscung 1700-1763* (Philadelphia, 1949), p. 11.

⁹Tatami is the famous Moravian convert, Chief Moses Fonda Tatemy (Tattamy, etc.). He was baptized by David Brainerd in 1745 and served as the missionary's

interpreter. He lived on an estate near Nazareth granted him by the Proprietors of the province for services rendered by him. Between 1756 and 1761, the probable year of his death, he participated in numerous treaties between the governors of the province and the Delaware. The statement here that he was killed by the English is wrong, though Heckewelder makes the same mistake. It was his son Bill who was shot by an irresponsible White man while the former was on his way with a party of Delaware, including his father and Chief Teedyuscung, to a conference at Easton, Pennsylvania. The son died after a month's suffering. Sketch of Moses Fonda Tatemy in *Handbook of American Indians North of Mexico* (2 parts, U. S. Bureau of American Ethnology, *Bulletin* 30, Washington, D. C., 1907, 1910), pt. 2, pp. 696-97; Wallace, *Teedyuscung*, p. 156; John Heckewelder, *History, Manners, and Customs of the Indian Nations . . .*, edited by William C. Reichel (*Memoirs of the Historical Society of Pennsylvania*, XII, Philadelphia, 1876), pp. 302n-3n.

10. ^(First created being) Netarawatwe became King of all the Nations in the West, again at Talligewink (Ohio) on the R. Cuyahaga, with our old allies the Talamatans (Huron or Guyandot) and calls all from the East.

11. But Tadeskung was King in the East at Mahoning and tribed by the Yankwes; there he was burnt in his house, and many of our people massacred at Hickory (Lancaster) by the Land-robers Yankwes.

12. Then we joined our friend Lowi in war against the Yankwes; but they were strong and they took Lowanaki (North land) from Lowi, and came to us in Talligewink when peace was made: and we called them Bigknives, Kichikan.

13. Then Alini (Whiteeyes) and Gelelenuend (Buck-killer) were chief, and all the Nations near us were allies under us or our grand children again. When the Eastern fires began to revile Gelejo Dolijo, they said we should be another fire with them.

14. But they killed Gelelenuend & our brothers on Munkingum, and Hopikan of the Wolf tribe, was made King and made war on the ^{Kichikan} Yankwes rather choosing Dolijo for ally as he was so strong.

10. Netawatwis (first renewed being)¹⁰ became king of all the Nations in the West, again at *Talligewink* (Ohio) on the R. Cayahaga, with our old allies the Talamatans (Hurons or Guyandots) and calls all from the East.

11. But Tadeskung was king in the East at Mahoning and bribed by the Yankwis; there he was burnt in his house, and many of our people massacred at Hickory (Lancaster) by the Land robbers yankwis.¹¹

12. Then we joined our friend Lowi in war against the Yankwis; but they were strong and they took Lowanaki (North land) from Lowi; and came to us in Talegawink when peace was made; and we called them Bigknives, *Kichikani*.

13. Then Alimi (Whiteeyes)¹² and Gelelenund (Buck-killer)¹³ were chiefs, and all the Nations near us were allies under us or our grand children again— When the Eastern fires began to resist Dolojo, they said we should be another fire with them.

14. But they killed our chiefs *Unamiwi* (turtling) & our brothers on Muskingum,¹⁴ and Hopokan of the Wolf tribe was made king and made war on the Kichikami Yankwis rather choosing Dolojo for ally as he was so strong.¹⁵

¹⁰Also spelled Netawatwees. This chief was born about 1677 and died in 1776 at Pittsburgh. He was chief of the Unami or Turtle division and consequently head chief of the tribe. He was the keeper of all contracts between his people and William Penn and other provincial officers. He moved with his people to the banks of the Cayuga in Ohio when the Indians were forced out of Pennsylvania. Upon his death he was succeeded by White Eyes. *Handbook of American Indians*, pt. 2, p. 58.

¹¹Tedyuscung or Teedyuscung. He was born at Trenton, New Jersey, about 1700 and died April 16, 1763. At the age of fifty years he began to speak for the Delaware on the Susquehanna. He took his stand with the English as against the French during the colonial struggles for the western country. He was the most virile chief of the Delaware during their subjugation by the Iroquois. He appeared as champion for the rights of his people at the councils at Easton, Pennsylvania, in 1756–58, denouncing in particular the Walking Purchase as a fraud. The reference above to his being bribed by the English concerns his withdrawal in 1762 of his charges of fraud against the proprietors in return for which he and his friends received £200. This last chief of the eastern Delaware was burned to death in his house in Wyoming. He was asleep—some say in a drunken stupor, for he was often a victim of the demon rum—when his house was fired by “enemies.” No one knows who set the fire, Iroquois or White men, but if the Iroquois were responsible, they were doubtless incited by Whites. Wallace, *Teedyuscung*.

¹²White Eyes (Koquethagechton) succeeded to chieftaincy on the death of Netawatwees in 1776. He was a friend of the Moravian missionaries. During the Revolution he strove to keep his people neutral, but when forced by the pro-British Captain Pipe to take a stand he openly espoused the American cause. He signed the treaty at

Fort Pitt, September 17, 1778, along with Captain Pipe and John Killbuck. This was the first treaty made by the United States with an Indian tribe. He died of smallpox in November, 1778, before actually engaging in warfare against the British. *Handbook of American Indians*, pt. 2, p. 944.

¹³Gelelenund, the Leader, known also as Killbuck. A grandson of Netawatwees, he was for a time chief counselor of the Turkey tribe, and after the death of Captain White Eyes was chosen temporarily head chief of the nation. He advocated peace during the Revolution and for this won the lasting enmity of some of his people. He was baptized William Henry by the Moravians and died in 1811 at Goshen, Ohio. *Handbook of American Indians*, pt. 1, p. 489.

¹⁴Rafinesque calls “Unamiwi” the grandson of White Eyes who “was killed by Bigknives in 1782.” Rafinesque, *The American Nations*, p. 159. No other mention of such a person has been found and it seems more likely that “Unamiwi” here means the Unami or Turtle division which took precedence over the other divisions of the Delaware, and the reference is to the murders of the Christian Indians at Gnadenhuetten in 1782.

¹⁵Hopokan, known to the Whites as Captain Pipe. A sachem of the Wolf clan he was war chief of the tribe. He took a stand against the Americans at the beginning of the Revolution and was hostile to the activities of the Moravian missionaries for many years. Eventually he was won over to them and it was he who doomed Col. Crawford to his tortured death following the massacre of the Christian Indians in 1782. Pipe signed the treaties of Fort Pitt and Fort Harmar and labored to maintain peaceful relations with the Americans after the Revolution. He died in 1794 shortly before the Battle of Fallen Timbers. *Handbook of American Indians*, pt. 1, pp. 568–69.

15. But the Eastern fires were stronger, they did not take Lowanaki, but became free from Doljo. We went to Wapahani (white Q) to be further from them; but they follow every where & we made war on them, till they sent Makhiakho (Black snake gent W. que) who made strong war.

16. We made peace & settle limits, and our next King was Hattking-pomkhan (hard walker) it was good, and peaceful. He would not join our Brothers Shawanis & Ottawas nor Doljo in the new war.

17. After the last peace, the Yankwisi come in crowds all around us, and they want again our lands of Wapahani: it was useless to resist, because they are getting stronger and stronger, by increasing, their United Fires.

18. Kiltikund & Lapanibi (White water) were the chiefs of our 2 tribes, when we resolved to exchange our lands and return at last beyond the Madispeh (muddy water or Mississippi) ^{near} to our ancient seat.

19. We shall be near our fires the Watson (Orages) but they are better than the Yankwisi (English Snakes) who want to upset the whole Big Island.

20. Shall we be free and happy there ^{at} at the New Wapahani, We want rest and peace and wisdom.

15. But the Eastern fires were stronger, they did not take Lowanaki, but became free from Dolojo. We went to Wapahani (White R) to be further from them; but they follow every where & we made war on them, till they sent *Makhiakho* (Black Snake, Genl. Wayne) who made strong war.¹⁶

16. We made peace & settle limits, and our next King was Hakhing-pomskan (hard walker)¹⁷ who was good, and peaceful. He would not join our Brothers Shawanis & Ottawas nor Dolojo in the new war.¹⁸

17. After the last peace, the Yankwis come in crowds all around us, and they want again our lands of Wapahani: it was useless to resist, because they are getting stronger and stronger, by increasing their United Fires.

18. Kithtilhund & Lapanibi (White Water)¹⁹ were the chiefs of our 2 tribes, when we resolved to exchange our lands and return at last beyond the Masispek (muddy water or Mississipi) near to our ancient Seat.

19. We shall be near our foes the Wakon (Ozages) but they are better than the *Yankwiakon* (English Snakers) who want to possess the whole Big Island.

20. Shall we be free and happy there? at the New Wapahani, We want rest and peace and wisdom.

¹⁶About 1770 the Delaware received permission from the Miami and Piankashaw to settle on the White River in Indiana. By 1800 there were nine villages on the West Fork, emigration to the region having increased following the Indians defeat at Fallen Timbers by Wayne (1795) and the Treaty of Greenville the following year.

¹⁷The name of this chief has various spellings; the most frequently seen is probably Hockingpomsa. He lived at his village on White River in present Delaware County, Indiana, about nine miles west of Muncie. He signed the treaty of Fort Wayne in 1803. He escaped death during the terrifying days on the river in 1806 when the Shawnee Prophet accused the Christian Indians of witchcraft and four were burned at the stake. Charles N. Thompson, *Sons of the Wilderness . . .* (Indiana Historical Society Publications, XII, Indianapolis, 1937), pp. 45-46, 199-200.

¹⁸The Battle of Tippecanoe (1811) and the western phase of the War of 1812 which followed.

¹⁹Kithtilhund (Kikthawenund, etc., or William Anderson) and Lapanibi (Lapahnilie, Lapanihe, etc., or Big Bear) were the two principal chiefs of the Delaware

when these Indians ceded their claim to lands in Indiana to the United States by the Treaty of St. Marys in 1818, and agreed to move west of the Mississippi to a country provided for them by the United States. Anderson was about sixty years old at the time of the emigration (1821) and Lapanibi ten years younger. The United States commissioners promised to pay personal annuities to the two chiefs, Anderson's to be \$360 and Lapanibi's \$140. John Johnston, Indian agent at Piqua, Ohio, to Secretary of War John C. Calhoun, October 22, 1821. Photostat in Indiana Historical Bureau. Anderson appears under various names as a signer of treaties between the Delaware and the United States beginning at the Treaty of Greenville in 1795 down to the treaty signed at James's Forks on the White River in Missouri in 1829. This last treaty bears the signature "William Anderson, principal chief, his x mark." Lapanibi or Big Bear signed the treaty at St. Marys in 1818. Charles J. Kappler (ed.), *Indian Affairs. Laws and Treaties* (2 volumes. Washington, D. C., 1904), II, *passim*.

VALIDITY OF TRANSLATIONS OF THE WALAM OLUM

BY C. F. VOEGELIN AND JOE E. PIERCE

IF procedure is a part of validity, we can at least give the procedures we have followed in translating the Walam Olum. Others, namely Brinton and Squier, have obtained translations of the same text which differ from ours; their procedures are not known and hence cannot be compared to ours.

Before translating the Walam Olum, field work was done both in Canada (Ontario) and in Oklahoma; a Delaware dictionary was compiled from which excerpts appear in the main body of the present volume. For example, at the very beginning, Book I, 1, there is a line of punctuated translation—"There at the edge of all the water where the land ends" This is immediately followed by a bracket, which encloses all items of information relevant to translating this particular section of the Walam Olum, including a word by word gloss taken from the Delaware dictionary referred to above. The method used in obtaining these translations is outlined below.

The words printed in roman letters in brackets—words which have come to us from Rafinesque and Dr. Ward—were read to certain native speakers of Delaware who served as bilingual informants. When the informant recognized a whole sequence of words (or any words in a sequence), he gave an English equivalent. Next, the informant was asked to give his modern Delaware pronunciation of that word or that sequence of words which he had just translated. These native pronunciations are now written in italics, followed by their gloss translations in single quotes. Thus, the first, Book I, 1, shows that a modern Delaware Indian recognized Sayewi as *šowii* which he equated to English 'edge'; he recognized talli as *táli* = 'there'; he recognized wemiguma as two Delaware morphemes compounded as one word, *wéemi* = 'all' and *-kkam* = 'body of water'; and he recognized wokgetaki

as two separate Delaware words, with alternative possibilities, either *wiikweek hákki* = 'where the land ends' or possibly *xkwóci hákkink* = 'on top of the land'.

Readers who are interested in Delaware inflectional endings (as in *hákki* 'the land' versus locative *hákkink* 'on the land') are referred to C. F. Voegelin's grammar¹ which also gives the phonetic value of all letters here printed in italics. The italic letters mostly represent the same sounds suggested by English, with only a few non-English letters used, such as š (s with a wedge over it) pronounced like English sh in ship. Two consonants, as kk or pp, sound like English k or p, but are held for length. Two identical vowels represent long vowels—ii sounds like ea in English heat, ee like a in English ham, uu like oo in hoot owl, aa like a in father. Upsidedown e, which looks like œ, sounds like the New England way of ending words in -er, as in butter. The x sounds like German ch as in the exclamation ach!

So far, we have told how we began with the version of the Walam Olum which Rafinesque obtained; then how we identified and thereby verified this version by getting modern Delaware Indians to retell, in effect, the same story. (But the modern version of the Walam Olum is recorded in reliable phonetics.) And we have given a simple key to the reader for pronouncing the modern phonetic version, which is consistently printed in italics. Next, we will compare the punctuated English translation in double quotes with a scientific control, known as a multi-stage translation.

In discussing the multi-stage translation two abbreviations are used, FL and TL. The first or FL is for the language from which we translate, the from language (hence FL)—in this case Delaware. We translate from this FL to a target language (hence TL)—in this case English.

The first step in the multi-stage method is to obtain a word-by-word English translation for each translation section in the Walam Olum. This is obtained from the Delaware dictionary, and enclosed in slant bars directly after the modern Delaware version of the Walam Olum. Thus, for Book I, 1, *sówii táli wéekmikkam wiikweek-hákki* = /edge there all-body-of-water where-the-land-ends/. In the above example each so-called Delaware word (one or more morphemes), printed

¹"Delaware, an Eastern Algonquian Language," in *Linguistic Structures of Native America* (*Viking Fund Publications in Anthropology*, No. 6, New York, 1946), pp. 130-57.

in italics, corresponds to a word or sequence of hyphenated words in the English version. A sequence of Delaware words, which corresponds to a sequence of English words enclosed in slant bars, is called a translation section. The word order in the slant bar stage of translation is that of the FL—that is, the words enclosed within slant bars are English but follow Delaware word order.

The second stage takes us from the English within slant bars, as described above, to English enclosed in parentheses. Altogether, there are four simple possibilities for transforming the first stage of translation into the second. These possibilities are listed below and exemplified.

(1) Rearrangement of word order, as when the English in slant bars /fish he-gives-him/ is rearranged in the parentheses to (he gives him fish).

(2) Subtraction of redundancies. The words subtracted are from the English within slant bars—they do not appear in the parentheses. Even though some words are subtracted, the verbosity of the FL is not concealed because the redundancies are shown within slant bars; yet the words in question are not allowed to clutter up the final stage of translation for they are subtracted just before the parenthetical stage.

(3) Additions of English words. Some words are added to the parenthetical stage, but are not directly translated from the FL, nor indeed found at all in the FL, as may be inferred from the absence of the words in question in the slant bar stage of translation.

For example, in the parenthetical stage shown below, (to) has been added; in the slant bar stage /somewhere/ has been subtracted; thus both operations—addition and subtraction—are illustrated in the following example: /they-go-some-where Snake-Island/ = (they go to Snake Island).

(4) One more possibility in going from the slant bar stage to parenthetical English is substitution. Sometimes a cultural equivalence may be assumed between these two stages of translation, when more than half of what is in slant bars has a new sequence of words substituted for it in the parentheses.

For example, when going from one FL /he hit him with a trunk/ (Czech) to English as a TL, the following substitution (he threw a bouquet at him) makes the two utterances culturally equivalent.

On the basis of the operations used in going from the first stage to the second, the translation sections of the Walam Olum fall into three easily separable groups.

Group I includes those sections in which the parenthetical stage differs from the slant bar stage only in the arrangement of word order. This group is characterized solely by rearrangement of word order.

One example is from Book I, 13: /fish he-gives-him turtles he-gives-him animals he-gives-him birds he-gives-him/ = (he gives him fish he gives him turtles he gives him animals he gives him birds); another example is from Book III, 19: /North Delaware East Delaware South Delaware Eagle Delaware Beaver Delaware Wolf Delaware Delaware-who-hunt shamans headmen women daughters Delaware dogs/ = (North Delaware East Delaware South Delaware Eagle Delaware Beaver Delaware Wolf Delaware Delaware who hunt shamans headmen women daughters Delaware dogs)—this example still calls for another stage of translation, that of punctuation and removal of the parentheses. The above translation section is simply a long list of items which are the actors in a longer English sentence which is completed in the next translation section.

Group II includes those sections in which the operations of ADDITION and SUBTRACTION, as well as REARRANGEMENT are used in going from the slant bar stage to the parenthetical stage. This group represents the vast majority—roughly 96 per cent of the sections translated from the Walam Olum. The additions and subtractions are of two types.

Type (A) shows additions of structural items, as articles and prepositions, which do not occur in Delaware but are essential for English; and shows the subtraction of items which are redundant from the point of view of English though appearing in Delaware.

Thus Book I, 2, /on-the-earth there-are-many fogs-thereabouts and just-there one-who-is-the-Great-Spirit he-stays-there/ = (on the earth were many fogs thereabouts and just there the one who is the Great Spirit stayed). Note that the verbs within slant bars are consistently translated as present tense—they might just as well have been translated as past tense; so far as the FL (Delaware) is concerned one form of verb is used and this is reflected in the single tense found in the first stage of translation. However, in our second, that is parenthetical stage of transla-

tion, we give whatever tense seems appropriate from a TL, i.e., English, point of view.

Thus Book I, 3, /edge to-begin to-be-unable-to-see everywhere one-who-is-Great-Spirit he-stays/ = (at the edge the one who is the Great Spirit began to be unable to see where he stayed).

Book I, 5, /he-creates-it sun night stars/ = (he created the sun and the stars of night).

Book I, 6, /all he-creates-it these-to-go/ = (all of these he created to go).

Book I, 7, /with-good-deeds it-blows sky-is-clearing-up much water-runs/ = (with good deeds it blew the sky cleared up and much water ran).

Book I, 10, /persons he-dies souls all/ = (and persons who die with souls for all).

Book I, 14, /beside big-manito bad-manito but he-creates-it big-men those and water-monsters/ = (but besides big manito bad manito created those big men and water monsters).

Book I, 15, /he-creates-it flies he-creates-it mosquitoes/ = (he created flies and mosquitoes).

Book I, 17, /he-hunts Delaware-clan with-manitos they-stay/ = (the Delaware clan hunted and stayed with the manitos).

Book I, 18, /those-young-men at-first men those-his-mother at-first women they-go-after-it/ = (those young men the first men went after their mothers the first women).

Book I, 24, /person all from-there across-the-water in-village something-which-is-very-big at-first-earth where-he-stays/ = (all persons from across the water stayed in a village which was very big on the first earth).

Book II, 2, /strong-snake I-hate-him those-young-men they-stay he-wants-to-go-to-forbidden-places thereabouts I-hate-him/ = (I hate strong snake because he wanted those young men who stayed thereabouts to go to forbidden places I hate him).

Book II, 4, /he-is-quarrelsome he-lives-there he-is-lazy he-fights/ = (they were quarrelsome they were lazy and they fought when they lived there).

Book II, 5, /strong-snake fast he-makes-up-his-mind men persons he-destroys-it/ = (strong snake made up his mind fast about men he destroyed him).

Book II,6, /these he-brings-it body-of-water he-brings-it rapids he-brings-it/ = (he brought these a body of water and rapids).

Book II,7, /water-runs it-is-hollow-spreading it-penetrates-like-lightning he-destroys-it / = (the water ran spreading where it was hollow it penetrated like lightning until he destroyed it).

Book II, 8, /turtle-island where-he-stays Nenabush he-is-strong people-his-grandfather men-his-grandfather / = (the Nenabush grandfather of people grandfather of men was strong and he stayed on Turtle Island).

Book II,11, /water-monster we-are-many-people some he-eats/ = (we were many people but the water monster ate some).

Book II,12, /manito-daughter boat-she-helps-him another-direction he-comes all-she-helps-him / = (the manito's daughter helped them with a boat if they came from another direction she helped all of them).

Book II,13, /Nenabush Nenabush all-his-grandfather person-his-grandfather man-his-grandfather turtle-his-grandfather / = (Nenabush Nenabush grandfather of all grandfather of persons grandfather of men grandfather of turtle).

Book II,15, /he-is-afraid turtle he-prays he-stops-what-he-is-doing he-fixes-it/ = (they were afraid they prayed to turtle who stopped what he was doing and fixed it).

Book III,1, /water-runs after Delaware turtle-man he-is-crowded-next-to-the-wall well-he-lives-there the-one-they-stay-with-their-spouse/ = (the water ran after the Delaware the turtle-man was crowded next to the wall but he lived well there the one they stayed with their spouse).

Book III,2, /it-freezes-over he-stays it-is-snowing he-stays it-blows he-stays it-is-cold he stays/ = (it froze over it snowed it blew and it was cold but he stayed).

Book III,3, /north-sloping-land he-puts-it-away wind-blows-cold they-are-many big-deer pieces-of-buffalo-meat/ = (on the north sloping land the wind blows cold and many are the big deer and pieces of buffalo meat that they put away).

Book III,6, /north east south west the-hunters he-came / = (the hunters came from the north the east the south and the west).

Book III,7, /long-ago-land north-land turtle-land they-hunt turtle Delaware/

= (in the land of long ago the north-land in the turtle-land the Turtle Delaware hunted).

Book III, 13, /boat upstream and-our-father he-dreams-of-it east Snake-Island/ = (in a boat upstream our father dreamed of Snake Island to the east).

Book III, 14, /head-beaver big-bird they-say-each-other all-let-us-go Snake-Island they-say-each-other/ = (head beaver and big bird said to each let us all go to Snake Island).

Book III, 15, /together all-he-says all-land they-are-free / = (he said to all they are all free in that land together).

Book III, 18, /ten-thousand upstream all-go-right-on one day or night upstream Snake-Island east-land upstream he-goes-along all man/ = (all ten thousand went right on upstream for one day or night all men went along to Snake Island the east land upstream).

Type (B) shows additions and subtractions as in type (A) above, but with less certain justification in the structure of the two languages; instead of merely structural needs, cultural needs are also reflected in the additions and subtractions of type (B). Thus, for Delaware it is possible to juxtapose 'manito' to 'manitos' (see example Book I, 9 below) without committing oneself as to the precise relationship of the one to the other. Our theological bias, when speaking English, is to be less vague than this—to commit oneself at least as far as saying that one Manito created the other Manitos.

Thus Book I, 4, /he-creates-it much land and other-side earth land/ = (he created much land here and the other side of the earth).

Book I, 8, /it-looks-white he-makes-it-island to-do-so where-he-stays/ = (he makes the island look white where he stays).

Book I, 9, /again one-who-is-the-Great-Spirit Manito Manitos/ = (again the one who is the Great Spirit a manito created manitos).

Book I, 11, /after manito young-men men his-grandfather/ = (later Manito gave to young men men and their grandfathers).

Book I, 12, /he-gives-her first his-mother person his mother/ = (their first mother the mother of persons).

Book I, 16, /my-friends all person to-do-so to-see/ = (all persons saw friends).

Book I,19, /she-goes-out-to-pick-berries at-first he-eats young-man he-goes-after/ = (first she went out to pick berries but the young man ate and then went after her).

Book I,20, /all to-like-to he-is-happy all to-feel all he-is-happy/ = (all liked to be happy and quickly all began to feel that they were happy).

Book I,21, /but when-he-does-so-secretly Big-on-Earth Manito-snake guardian-spirit worship-snake/ = (but when Big-on-Earth the Manito-snake the guardian-spirit the worship-snake did things secretly).

Book I,22, /he-does-mean-things to-destroy-he-does-so black good-deeds they-come just-there/ = (he did mean things when he did so to destroy things black deeds came there).

Book II,1, /long-ago snake when-men big-men they-stay/ = (long ago there was a snake when men the big men stayed there).

Book II,3, /two he-destroys-it two it-is-fixed-bad two not they-keep-peace-with-each-other/ = (the two destroyed things and they were badly off because they did not keep peace with each other).

Book II,9, /it-is-windy he-creeps little-turtle he-untied-him/ = (when it was windy he crept over to little turtle and untied him).

Book II,10, /person man all-will-be-going-right-on rapids-and-river he-creeps downstream there Turtle-place/ = (all men the people were going right on down the rapids and the river they crept downstream there to the Turtle-place).

Book II,14, /Delaware-there Turtle-there Turtle belt-tied-around-waist/ = (the Delaware were there Turtle was there and Turtle had a belt tied around his waist).

Book II,16, /water-runs he-is-dry-to-become extending-a-long-way-it-is-hollow cave he-is-strong Manito-snake go-another-way some-place-else/ = (the water ran away and it became dry in the cave which extended a long way and was hollow Manito-snake was strong and he went another way someplace else).

Book III,4, /he-is-strong he-is-rich they-received-supernatural-powers-from-him he-comes he-lives-there-beside it-is-torn-apart/ = (he was strong he was rich they received supernatural powers from him when he came and lived there beside them then the group was torn apart).

Book III,5, /most-he-is-strong most-he-is-gentle most-he-is-religious-person

the-hunters they-do-so/ = (the hunters who were the most strong the most gentle and the most religious did so).

Book III,8, /all-land shade-house fire he-is-worried pipe-bearer all persons he-says-so let-us-depart/ = (in all the land around the shade-house fires the pipe bearer said to all persons let us depart).

Book III,9, /snake-place all-we-will-be-going-right-on another-direction he-is-in-earnest he-grieves-to-death/ = (at the snake place all were going right on in another direction they were in earnest and they grieved almost to death).

Book III,11, /they-are-free-person to-take-care-of-Delaware-mental-attitude north be-goes-away-from it-is-snowing-land/ = (the Delaware were free well taken care of persons in the north they went away from the land where it was snowing).

Book III,12, /fish-clear-water it-is-hollow-well snow-mountain white-eagle he-has-white-tail-feathers his-father white-wolf his father/ = (where the clear water fish was in the hollow well near snow mountain there lived the father of white eagle who had white tail feathers and the father of white wolf).

Book III,16, /to-have-one-mind north to-have-one-mind across-the-water it-freezes-over body-of-water it-is-good where-he-stays/ = (they had one mind to go across the water to the north when it froze over it was good so they stayed).

Book III, 17, /he-has-things-turn-out-well-for-him shore all-where-he-stays stone-body-of-water something-which-is-very-big hollow-well/ = (they had things turn out well for them near the shore all who stayed near the body of water as hard as stone which was very big near the hollow well).

Book III,20, /all-he-comes snow-mountain forest-pine-land west-person he-is-out-of-humor he-comes most-mental-attitude old turtle-land/ = (they all came from snow mountain and the forest pine land the west persons were out of humor they came but they liked the old turtle-land best).

Group III includes those sections in which the transformation from the slant bar stage to the parenthetic stage involves SUBSTITUTION in order to obtain culture equivalence.

Thus Book I,23 /it-is-bad-weather he-comes he-kills-him he-comes he-dies he-comes/ = (bad weather came killing came death came).

Book III, 10, /he-is-weak he-is-worried he-trembles they-go-somewhere it-is-torn-in-small-pieces it-is-broken-apart-in-large-pieces Snake-Island/ = (they were weak they were worried and they trembled the Delaware were broken up into large and small groups and they went to Snake-Island).

PICTOGRAPH CONCORDANCE WITH BIBLIOGRAPHY

BY ELI LILLY

(For full citations of works referred to, see Bibliography, *post*, p. 237. TEXT references are to books and verses of the translation of the Walam Olum given above.)

Absence, *see* Death or absence (17).

- 1 **All, everyone, many**—groups of two or more small circles, representing individuals, arranged in lines or clumps.
This same device was used in certain figures by the primitive Chinese (Wieger, pp. 158, 164), and also by the Eskimo (Schmitt, I, 240, Urkunde 9, no. 21; II, 9, no. 21).
TEXT: I, 16; II, 10; III, 11, 15, 17; IV, 32, 36, 48, 52, 53, 59, 60; V, 4, 9, 26.
- 2 **Animals**—as would be expected, there are many crude representations of animals in the Walam Olum.
GENERAL REFERENCE: Copway, pp. 135, 137.

Beaver

REFERENCE: Tompkins, p. 76.
TEXT: III, 14; IV, 12; V, 11, 36.

Birds

REFERENCES: Copway, p. 135; Schoolcraft, I, 115 and plate 36 facing p. 114.
TEXT: I, 13; III, 12, 14; IV, 2, 8, 10, 12, 38, 41; V, 6.

Buffalo

TEXT: IV, 29, 37.

Cat

TEXT: V, 3.

Fish

REFERENCE: Copway, p. 134.
TEXT: I, 13; III, 12; IV, 14.

Fly, mosquito

TEXT: I, 15.

Frog

TEXT: V, 57.

Otter

TEXT: V, 44.

Owl

TEXT: IV, 8, 38.

Serpent, evil

REFERENCES: Clark, p. 353; Cressman, p. 12; James (2), I, 278; Mallory (3), p. 474; Over, p. 30; Schoolcraft, II, 227; Tompkins, pp. 79, 90.

TEXT: I, 14, 21; II, 1, 2, 3, 5, 6, 7.

Turtle

REFERENCES: Copway, p. 134; Schoolcraft, I, 353, 390; Tompkins, p. 81; Wardle, p. 381.

TEXT: I, 13, 24; II, 8, 9, 14, 15; III, 1, 7; V, 14.

Wolf

TEXT: III, 12; IV, 42; V, 32.

3 **Bad, evil**—series of crosshatched lines, some of the vertical ones terminating in solid circles.

REFERENCES: Copway, p. 135; Mallory (2), p. 586; Tompkins, p. 76.

TEXT: I, 22.

Base line, see Ground or base line (31).

4 **Berries, food**—a small circle or a group of very small circles usually attached to a line representing a stem.

REFERENCES: Kohl, p. 157; Salomon, p. 396; resemblance to Egyptian hieroglyphics, Diringer, p. 60.

TEXT: I, 19; IV, 25, 28, 34; V, 6, 49.

Boat, see Canoe, boat (8).

5 **Bond of relationship**—single or double lines joining two or more figures.

REFERENCE: Mallory (2), pp. 603, 604. Primitive Chinese used this double bond to portray benevolence linking each man to his neighbor. Eskimo also used this ideograph. (Several such are shown in Schmitt, II, 26, nos. 32, 34, 36, 38, 48.)

TEXT: I, 9, 18, 24; III, 16; IV, 16², 33, 36, 54, 58, 60; V, 27, 29, 33, 41, 44, 48, 49, 52 [a and b], 54.

6 **Brave, inspired**—a small circle or square within the representation of the body of a figure, “showing a great heart.”

REFERENCES: Copway, p. 135; Tompkins, p. 81.

TEXT: III, 5; IV, 20, 43, 44, 45; V, 28.

7 **Calamity, starvation**—a horizontal line struck through the human figure.

REFERENCES: Clark, p. 216; Hoffman (2), pp. 130–31; Mallory (1), p. 221; Tompkins, pp. 34, 77, 79, 90. Eskimo used this figure to express “pain” (Schmitt, I, 297, no. 68; II, 39, no. 68).

TEXT: II, 1, 2, 3, 4; V, 31, 42², 53, 54.

8 **Canoe, boat**—sketch of the outline of a canoe or boat.

REFERENCES: Copway, p. 136; Hoffman (2), pp. 132, 133, (4), p. 225; Schoolcraft, I, 352, 406, 410.

TEXT: II, 12; III, 13; V, 8, 17.

9 **Celestial arch**—a semicircle or concentric semicircles or curved lines above a horizontal base line.
 REFERENCES: Hoffman (2), p. 136; Kohl, pp. 400–1; Mallory (2), p. 239, (3), p. 372; Schoolcraft, I, plate 47 facing p. 336, pp. 388, 390, 406.
 The vault of heaven also appears in Mexican pictures (Mason, p. 121) and in Chinese ideo-graphs (Mason, p. 178; Wieger, p. 288), and was used by the Eskimo (Schmitt, II, 4, no. 24).
 TEXT: I, 1, 5, 6, 7, 8, 9, 17; II, 7.

10 **Children**—three or four short vertical lines rising from an independent base line.
 REFERENCES: Densmore (1), p. 176; E. W. Voegelin, p. 45.
 Text: III, 19?; V, 48.

Christians, *see Whites, Christians* (79).

11 **Clear**—uplifted arms spread sidewise, as in sign language.
 REFERENCES: James (2), I, 285; Mason, pp. 22, 53. The Eskimo used this figure to express gladness (Schmitt, II, Tabelle II, no. 8).
 TEXT: I, 7.

12 **Cleft, rest, pause**—a short vertical or horizontal line severing one element of a pictograph from another.
 REFERENCES: for rests, pauses, or divisions, Mallory (2), 240; Schoolcraft, I, plate 51 facing p. 361, and plate 52 facing p. 373.
 TEXT: III, 9; IV, 50, 51; V, 13, 41, 42.

13 **Cloud**—a small semicircle or series of them based upon a horizontal line.
 REFERENCES: Mallory (2), p. 700; Mason, p. 111.
 TEXT: I, 23; II, 6; V, 9.

14 **Coast, seaboard**—the usual bowl-shaped symbol for water with the bottom line swinging above the water line to form a land symbol on one side.
 TEXT: IV, 13; V, 40, 51, 57, 58, 60. In V, 26, 37, 59, the bottom of the bowl has been omitted.

15 **Cold, north country, snow**—a semicircular celestial arch from which are appended short vertical lines representing snow.
 REFERENCES: Copway, p. 135; Hoffman (1), pp. 57–58, 59; Mallory (1), pp. 131, 132, (2) p. 605; Schoolcraft, III, 487; Tompkins, p. 77. This figure is somewhat like the Babylonian glyph for night or cold (Mason, p. 255), or the Egyptian pictograph for rain (Mason, p. 212), or the Eskimo figure for “dark or gloomy” (Schmitt, I, 315, no. 54; II, 45, no. 54).
 TEXT: III, 2, 11; IV, 10, 24; V, 18.

Conspiracy, *see Hate, conspiracy* (32).

16 **Day or year**—a circle at the end of a vertical line usually extending below a base line but sometimes above it.
 REFERENCES: Mallory (1), pp. 88, 89, (2), p. 265; Mason, p. 111; Tompkins, p. 80.
 TEXT: III, 18?.

17 **Death or absence**—a figure placed below the base line, often inverted. This device is probably used five times in the Walam Olum while in ten instances the same arrangement means “south.”
 REFERENCES: Clark, p. 150; Densmore (1), pp. 176, 177; Kohl, pp. 403–4; Mallory (3), p. 424; Schoolcraft, I, 356, 411.

Inversion also means death in certain old Chinese ideographs (Wilder, p. 103). It was also employed by Australian aborigines, and indeed figures on the escutcheons of an English king were reversed to indicate the king's decease (Mason, p. 90).

TEXT: I, 15, 23; IV, 28, 30, 43, 45[?], 46; V, 22, 42, 60.

Delaware, *see Lenape, Delaware* (43).

Delaware chief, *see Lenape chief* (44).

Destruction, *see War or destruction* (74).

18 **Difficulty, trouble**—two vertical marks, probably meaning a less calamitous situation than indicated by the three vertical marks meaning **Injury, peril** (37).

TEXT: III, 18; IV, 21, 27, 56.

19 **Direction**—indicated in the same way as on our maps: the top of the figure is north, the bottom south, east is to the right, and west to the left.

REFERENCES: James (1), pp. 359, 360; Schoolcraft, I, 386.

TEXT: III, 3, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 19, 20; IV, 2, 10, 11, 12, 13, 14, 17, 24, 28, 32, 34, 41, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 59, 61; V, 2, 10, 12, 13, 19, 20, 21, 22, 23, 24, 26, 29, 30, 37, 39, 40, 42, 46, 50, 51, 57, 58, 59, 60.

20 **Divine, hallowed, spiritual**—expressed by concentric circles or a circle with a dot in the center.

REFERENCES: Copway, p. 135; Cressman, p. 53; Tompkins, p. 79; Hoffman (1), pp. 165-66. In early Chinese pictography a circle with a dot in it denoted a dead man, a ghost, a specter (Wieger, p. 112).

TEXT: I, 3, 9, 10, 14, 15, 17; II, 15; III, 8; IV, 1, 16, 60, 61, 63; V, 1, 29, 33, 43, 45, 46, 56, 59.

21 **Dwellings, villages**—small parallelograms, usually square.

REFERENCES: Mallery (1), p. 237, (2), p. 720. Like figures were used in many pictographic systems: Chinese (Wieger, p. 188); Cretan (Evans, IV, 623); Egyptian (*Encyclopaedia Britannica*, 14th ed., XI, 546); Babylonian (Mason, p. 255); in Sinai script (Field, p. 812).

TEXT: I, 24; III, 1; IV, 19, 21, 29, 34, 50, 57, 58, 59, 64; V, 4[?], 7, 14, 20, 23, 41, 43.

Enemies, *see Snake tribe or clan* (63).

Everyone, *see All, everyone, many* (1).

22 **Evil**—a double fanglike mark.

TEXT: I, 14, 15, 23; II, 5, 6; III, 8, 9, 15; V, 16, 42.

23 **Eye symbol**—used in recording proper names.

REFERENCE: Mallery (2), pp. 642-43.

This symbol was used by many primitive people: Babylonians (Mason, p. 255); Chinese (Wilder, 39); Cretans (Evans, I, 282); and in Sinai script (Field, p. 812).

TEXT: IV, 47; V, 19, 58.

24 **Fear, trembling**—wavy lines attached to or passing through a pictorial symbol.

Eskimo used wavy lines to express fear (Schmitt, I, 239, no. 56; II, 8, no. 56).

TEXT: IV, 64; V, 31.

25 **Female**—delineated by obvious methods.

REFERENCES: Jackson, p. 385; James (2), I, 285; Mason, p. 111; Schoolcraft, I, 386, II, 58.

TEXT: I, 12, 18; II, 12.

Food, *see Berries, food* (4).

26 **Forest**—outline of a pine tree.

The Babylonians (Mason, p. 255) and the early Chinese (Wieger, pp. 276, 278) also used this same glyph to mean forest.

TEXT: III, 20; IV, 1, 8, 13.

27 **Four quarters of the earth**—any one of several kinds of four-pointed figures.

REFERENCES: Kohl, pp. 154, 215; Mason, p. 111; Salomon, p. 115.

The Chinese used a four-sided figure to denote the four regions of space (Wieger, p. 271). In Crete it was an acre sign (Evans, IV, 721).

TEXT: I, 2, 3, 4, 13, 16, 20; II, 13; IV, 36; V, 33.

28 **Friendly, peaceful, pleasant**—a small isosceles triangle.

The ancient Chinese used a triangle of this type to mean “union,” “harmony” (Wieger, 45).

TEXT: I, 16; II, 16; IV, 1, 5, 7, 18, 29, 35, 39, 61; V, 24², 25², 32.

29 **Great, large**—a square used to denote the size of the land and the greatness of many chiefs.

REFERENCES: Copway, p. 135; Mallery (2), p. 596.

TEXT: I, 20; IV, 5, 18, 19, 29, 43; V, 4, 21.

30 **Great Spirit**—rays drawn from the head symbol.

REFERENCE: Schoolcraft, I, 372, 408.

TEXT: I, 2.

31 **Ground or base line.** The pictographs of the Walam Olum seem to be unique in that such a large percentage of them have a ground or base line. There are so many of these ground lines that mention of them is often omitted in the explanations. One, two, or three lines are used.

REFERENCE: James (1), pp. 345, 376.

The same device was used by the Chinese as a base line (Wilder, p. 35) or to express primordial unity or source of all (Wieger, p. 26).

TEXT: I, 2, 5, 7, 9, 11, 14, 15, 23; II, 16; III, 3, 4, 8, 9, 10, 13, 14, 15, 16, 17, 18, 19, 20; IV, 1, 2, 3, 5, 6, 8, 11, 13, 14, 15, 17, 19, 20, 22, 24, 25, 26, 27, 29, 30, 33, 34, 35, 38, 39, 40, 41, 42, 43, 44, 46, 48, 50, 51, 52, 55, 56, 57, 58, 59, 60, 61, 63, 64; V, 2, 4, 6, 8, 9, 10, 11, 14, 15, 18, 19, 20, 23, 24, 25, 26, 28, 30, 36, 37, 39, 40, 41, 42, 43, 45, 48, 49, 51, 53, 54, 55, 57, 58, 59, 60.

Hallowed, *see Divine, hallowed, spiritual* (20).

32 **Hate, conspiracy**—an X (war glyph) within a parallelogram or truncated pyramid.

TEXT: IV, 31, 62; V, 56.

33 **Hidden, invisible**—figures placed within a large isosceles triangle.

REFERENCES: Cadzow, pp. 130 (36); Tomkins, p. 81.

It is perhaps suggestive that the ancient Chinese had a figure much like this which meant “to cover” (Wieger, p. 95).

TEXT: I, 10; IV, 7.

34 **Human figure.** In addition to many glyphs representing chiefs and tribes, there are a number of simple sketches of the human figure, as in the pictographs of all races.

REFERENCES: Copway, p. 134; Hoffman (1), p. 146; Schoolcraft, I, plate 58 facing p. 408; Steward, p. 211.

TEXT: I, 11, 12, 18; II, 1, 2, 3, 4, 12; III, 4, 5; IV, 9, 35.

35 **Hunter**—an arrow.

REFERENCE: Tomkins, p. 78.

The arrow is the zodiacal sign of Sagittarius the Archer.

TEXT: III, 5, 6; IV, 55.

36 **Ice**—a double line on the surface of water.

TEXT: III, 16, 17, 18.

37 **Injury, peril**—three short parallel vertical lines, above, below, or passing through a base line.

Possibly derived from a sign for "bad," a sudden extension of the fingers while moving the hand toward the earth.

A pictograph strikingly like this three-vertical-lined one was used by the primitive Chinese: three parallel vertical curved lines crossed by a horizontal line in the center which meant calamity or misfortune, especially from inundation (Wieger, p. 41). Also number 8 of the mystic trigrams represents the earth element, the element of destruction and bad presage. (Diringer, p. 101).

TEXT: I, 21; II, 6, 11; III, 3, 10; IV, 47; V, 60.

Inspired, *see Brave, inspired* (6).**Invisible**, *see Hidden, invisible* (33).38 **Iroquois, northerners**—indicated by a distinguishing headdress of one of two types; one, a small inverted T resting upon the head circle, and the other, a small T in the same position.

TEXT: IV, 45, 54, 61, 62, 63, 64; V, 31, 44, 47, 48, 53, 54.

39 **Island**—a small isosceles triangle.

REFERENCES: Copway, p. 135; Mallery (2), p. 344; Mason, p. 111.

TEXT: I, 8; IV, 4, 42.

40 **Killed**—a circle with representations of men around the inside.

REFERENCE: Mallery (1), p. 126.

TEXT: IV, 4.

41 **Land, flat**—a double ground or base line with enclosed ends.TEXT: I, 1, 6, 17, 19, 20, 21; II, 8, 9, 13, 16; III, 3, 7; IV, 18, 21, 32, 62; V, 1, 3, 7, 12, 22, 27², 38, 47.

In two cases this assumes the shape of a truncated pyramid.

TEXT: II, 16; III, 2.

In early Chinese the double base line indicates heaven and earth (Wieger, p. 28).

42 **Land, rolling**—a medium-sized semicircle or quarter circle, inscribed above a ground line.

REFERENCES: Mason, p. 212; Schoolcraft, I, 372, 378, 409; Wardle, p. 381.

TEXT: I, 4, 11, 16; II, 10; III, 9, 10, 13, 15, 20; IV, 1, 3, 6, 13, 49, 50, 51, 55, 56, 59; V, 10, 19, 20, 22.

Large, *see Great, large* (29).43 **Lenape, Delaware**—indicated by three glyphs, a small circle, a small circle with a short curved line arising from it, and a small circle with three short lines extending from the top. There seems to be no significance in these types unless it be that the "three-feathered" glyph represents the more powerful members of the tribe. See Mallery (2), pp. 377-88, for tribal designation.

Simple circle: TEXT: II, 7, 13. III, 1, 2, 19; IV, 26, 33, 52, 53, 54, 60; V, 9, 18, 52 [a].
 Simple circle with one curved line: TEXT: I, 17; II, 10, 12, 14, 15; III, 17, 19, 20; IV, 1, 2, 32, 36, 48, 49; V, 4, 13, 26, 29, 52 [a and b], 55.
 Simple circle with three "feathers": TEXT: II, 1, 2, 3, 4, 11, 16; III, 4, 5, 7, 10, 11, 13, 15, 16; IV, 4, 11, 61.

44 **Lenape chief**—indicated by three curved lines extending upward from the head circle, the center one being the longest and often decorated.
 A surprising coincidence is that the primitive Chinese indicated a chief by three curved lines rising from the head (Wieger, p. 805).
 TEXT: IV, 5, 8, 15, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, 35, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 50, 51, 55, 56, 57, 58, 59, 60, 62, 63, 64; V, 2, 3, 4, 5, 6, 7, 8, 9, 11, (12, 13, six and five feathers, respectively), 14, 15, 16, 17, 18, 19, 20, 23, 24, 25, 27, 28, 30, 32, 36, 37, 38, 39, 41, 42, 44, 45, 47, 49, 50, 51, 53, 54, 55, 57, 58.

45 **Lie**—a V-shaped mark extending downward from the mouth, probably derived from sign language meaning "talking two ways."
 REFERENCES: Clark, p. 234; James (1), p. 346; Tomkins, p. 38.
 TEXT: I, 24; II, 5, 6.

46 **Long ago**—a large circle.
 REFERENCE: Mallery (1), p. 88.
 TEXT: IV, 1; V, 1.

Many, see All, everyone, many (1).

47 **Moon**—the usual crescent-shaped figure.
 REFERENCES: Clark, p. 260; Copway, p. 134; James (2), I, 285; Mallery (2), p. 242; Mason, p. 111; Schoolcraft, I, 385, 408; Tomkins, p. 90.
 A crescent pictograph was used by many primitive peoples (Mason, p. 7); Chinese (Wilder, p. 197; *Encyclopaedia Britannica*, 14th ed., V, 568); Cretan (Evans, IV, 685); and also is a sign of the zodiac (Mason, p. 11).
 TEXT: I, 5, 6.

48 **Mountains**—large triangle or triangles, usually with more acute apexes than the smaller triangle representing islands or peace.
 REFERENCES: Copway, p. 136; Mallery (2), p. 344; Mason, p. 111; Tomkins, pp. 78, 90. The same device was used by the Eskimo (Schmitt, I, 257, no. 49, II, 22-A, no. 49).
 TEXT: III, 12; IV, 29, 49; V, 24², 25², 45.

49 **Nenabush**, the culture hero—profile of head with four curved lines representing headdress.
 Archaic Chinese represented their culture hero in much the same way (Karlgren, p. 61; Wilder, p. 292); also Babylonians (Mason, pp. 255-56).
 TEXT: II, 8, 9, 13.

North country, see Cold, north country, snow (15).
Northerners, see Iroquois, northerners (38).
Pause, see Cleft, rest, pause (12).
Peaceful, see Friendly, peaceful, pleasant (28).
Peril, see Injury, peril (37).

Pleasant, *see Friendly, peaceful, pleasant* (28).

50 **Pot**—outline of a cooking vessel.

REFERENCE: Mallory (2), p. 245.

TEXT: I, 20.

Power, *see Prosperity, power* (53).

51 **Powerful**—long vertical lines or parallelograms whose long axes are vertical.

TEXT: I, 14; II, 1, 3, 4; III, 4, 5; IV, 30; V, 21, 30, 36, 54.

52 **Prayer or supplication**—arms upraised sidewise from the body at an angle of 45°.

REFERENCES: Hoffman (2), p. 140, 141; Jackson, p. 367; Mallory (2), p. 703; Tomkins, p. 81; Sinai script, Field, p. 812.

TEXT: II, 12, 15; V, 23.

53 **Prosperity, power**—a vertical line crossed by three horizontal lines near the top, looking like a telegraph pole or single pole ladder. This may be a symbol of the hands, as it was in the ancient Chinese (*Encyclopaedia Britannica*, 14th ed., V, 568). If so, the idea of power is meant.

REFERENCES: Copway, p. 136; Mallory (2), p. 711.

The ancient Chinese had a pictograph almost like this except that the top horizontal line was bent upwards at both ends. It meant luxuriant, graceful, prosperous (Wieger, p. 239). The modern Chinese figure is even more like the Lenape glyph than the older one (Wieger, p. 669). Evans (IV, 753) calls it the "tree sign," saying that it represents a certain sign. It is also a letter in the Phoenician alphabet (Mason, pp. 295, 390). The Eskimo used a glyph like this to express "praise" (Schmitt, I, 310, no. 25; II, 43, no. 25).

TEXT: III, 3; IV, 57; V, 41.

Since this figure may represent a single pole ladder, the modern Chinese celebration of the second day of the second month as the birthday of the God of Soil may derive from the same root. "In the early morning, the head of the family draws pictures of granaries, and ladders before the front door. . . . This expresses a wish for a good crop harvest, . . . and that the piles of crops shall be so high that ladders will be needed to reach the top of them." *A Chinese Village*, by Martin C. Yang (New York, 1945), pp. 95, 96.

54 **Rain**—vertical lines usually drawn in connection with a celestial arch but not in the Walam Olum.

REFERENCES: Copway, p. 135; Cressman, p. 55; Mallory (2), p. 701; Mason, p. 111. Chinese, Wieger, p. 288; Cretan, Evans, IV, 658, 733.

TEXT: IV, 28.

Relationship, *see Bond of relationship* (5).

Rest, *see Cleft, rest, pause* (12).

55 **River**—a wavy line or lines.

REFERENCES: Clark, p. 320; Copway, p. 134; Hoffman (2), p. 136; Kohl, p. 142; Mallory (2), pp. 240, 241, 344, (3), p. 358; Tomkins, p. 79.

One, two, or three parallel zigzag or curved lines served almost universally as the pictograph for river, stream, or water: Babylonian (Mason, p. 255); Egyptian (Mason, p. 212); Chinese (Wieger, pp. 39, 40); in Sinai script (Field, p. 812); zodiacal sign of Aquarius the Water Carrier (Mason, p. 11).

TEXT: I, 4; IV, 34, 49, 52; V, 2, 8, 11, 24.

56 **Road, trail**—a curved line.
 REFERENCE: Cadzow, p. 130, figure 43 (24).
 TEXT: I, 19; III, 8, 9, 10, 12, 14?; IV, 2, 21, 37, 38, 51, 52.

57 **Sassafras**—a drawing of a tree with crooked branches characteristic of the sassafras.
 REFERENCES: Copway, p. 135; Mallory (2), p. 244; Tomkins, p. 80.
 TEXT: V, 25, 36.

58 **Sea**—open-end parallel lines may mean the sea.
 TEXT: I, 1, 8.

Seaboard, *see* **Coast, seaboard** (14).

59 **Secretly**—represented by a horizontal curved figure, the high curve to the left and the low curve to the right.
 REFERENCE: Clark, p. 210.
 TEXT: I, 21; II, 7; IV, 32.

60 **See**—the eye emblem with a horizontal line drawn from it.
 REFERENCES: Clark, p. 332; Copway, p. 136; James (1), p. 376; Mallory (2), p. 601; Mason, p. 111; Schoolcraft, I, 375; Tomkins, pp. 79, 90.
 TEXT: IV, 47; V, 39, 58, 60.

61 **Shaman**—two wavy lines drawn from each side of the head or wavy line across the top of a short line arising from the head.
 REFERENCES: James (1), p. 373; Mallory (3), 381; Schoolcraft, II, 223; Tomkins, p. 78.
 TEXT: III, 19.

62 **Sinister**—a figure crossed by a series of transverse lines like stripes on prison garb.
 The Eskimo also used a zigzag-marked figure to express sinners (Schmitt, I, 298, no. 13; II, 49, no. 13).
 TEXT: I, 14; II, 5, 6, 11; III, 15.

63 **Snake tribe or clan, enemies**—V-shaped mark as headdress.
 REFERENCES: Clark, pp. 336-37; Mallory (1), p. 204.
 TEXT: III, 9, 10; IV, 3, 6, 7, 16, 44, 46; V, 16, 17, 22, 42, 43, 49, 56.

Snow, *see* **Cold, north country, snow** (15).

64 **Speech**—a horizontal line drawn between the mouths of those conversing or drawn from the mouth of a person speaking.
 REFERENCES: Clark, p. 369; Copway, p. 136; Hoffman (1), pp. 113-14; James (1), pp. 373, 376; Mallory (1), p. 173, (2), pp. 243, 718, 719; Mason, pp. 85, 111; Schoolcraft, I, 403; Tomkins, p. 79. Eskimo used this method also (Schmitt, II, Tabelle II, no. 67).
 TEXT: III, 14; IV, 53; V, 39, 60.

Spirit, *see* **Divine, hallowed, spiritual** (20).

65 **Spiritual importance**—a curved line over the head, the idea being a load of importance or protected from above.
 REFERENCES: James (1), p. 351, 364; Reagan, p. 82; Schoolcraft, I, 385, 408.

Much this same figure was used by the primitive Chinese to mean "heaven" (*Asia*, January, 1945, p. 25).

TEXT: I, 11, 12.

66 **Spiritual power**—a celestial arch with the lower ends curving outward and sometimes upward.

REFERENCES: Mallery (3), p. 381; Schoolcraft, I, 370.

TEXT: I, 9.

67 **Stars**—shown as dots.

REFERENCES: Copway, p. 135; Mallery (3), p. 699; Mason, p. 111.

TEXT: I, 5, 6.

Starvation, *see Calamity, starvation*.

68 **Sun**—a plain circle with or without rays or a face and with the possible combinations of these elements. The rising or setting sun (east and west) is, of course, semicircular.

REFERENCES: Copway, p. 134; Fewkes, p. 445; Jackson, p. 432; James (1), p. 379; Mallery (1), p. 239, (2), pp. 370, 371, (3), 694, 695. The circular pictograph for the sun was used by almost all primitive people (Mason, p. 7); in China (Wieger, p. 311, and *Encyclopaedia Britannica*, 14th ed., V, 568); in Crete (Evans, I, 107, 282); in Egypt (*Encyclopaedia Britannica*, XI, 546); among the Incas (Posnansky, I, 113); and as a sign of the zodiac (Mason, p. 11).

TEXT: I, 5, 6, 10, 17; IV, 48; V, 12, 26, 59.

69 **Supernatural being**—a diagonal line or pair of parallel lines drawn across body of figure.

REFERENCES: Hoffman (1), p. 77; (4), plate V facing p. 172, pp. 239, 253.

TEXT: IV, 16? 31.

Supplication, *see Prayer or supplication* (52).

70 **Talligewi**—indicated by a short, horizontal line drawn from the top of the head to the right (east).

TEXT: IV, 50, 52, 55, 56, 57, 58, 59; V, 1, 14, 19, 20, 21.

Trail, *see Road, trail* (56).

71 **Traveling, walking**—the legs of the human glyphs are spread apart as in the act of walking.

REFERENCES: Copway, p. 136; Kohl, p. 139; Mallery (3), p. 359; Mason, p. 111; Schoolcraft, I, 337; Salomon, p. 396; Tomkins, p. 79. The Egyptians (*Encyclopaedia Britannica*, 14th ed., XI, 546), and the early Chinese (Wieger, p. 689) used this same way to express marching, progress. Possibly used also by the Incas (Posnansky, I, 134). The Eskimo used this (Schmitt, II, Tabelle II, 17).

TEXT: I, 18; III, 11; IV, 6, 15, 51, 55; V, 9, 15, 18, 29, 42, 47, 48, 50, 53, 55.

Trembling, *see Fear, trembling* (24).

Trouble, *see Difficulty, trouble* (18).

72 **Vegetation**—a number of short vertical lines rising from a ground line.

REFERENCE: Tomkins, pp. 81, 90. The early Chinese pictograph representing grass was much the same figure (Wieger, p. 200; Wilder, p. 149). It was used also among the Eskimo (Schmitt, I, 297, no. 52; II, 39, no. 52, and I, 248, no. 8; II, 18, no. 8).

TEXT: IV, 3; V, 6, 22, 38.

73 **Veneration**—shown for manitos and ancestors in the shape of a four-feathered headdress.

TEXT: I, 18, 19; II, 4.

Villages, *see Dwellings, villages* (21).

Walking, *see Traveling, walking* (71).

74 **War or destruction**—a diagonal cross.

REFERENCES: Mason, p. 111; Mallery (1), p. 187; Schoolcraft I, 409, 354 (scalps), 391 (harm); Tomkins, p. 80. Such a cross was used to represent "bad" by Eskimo about 1900 (Schmitt, I, 248, no. 16; II, 18, no. 16, and Tabelle II, no. 10). A cross was used by the early Chinese to mean evil, sad, cruel (Wieger, p. 105).

TEXT: I, 14; II, 3, 4; IV, 16?, 17, 41, 43, 44, 45, 46, 53, 56, 57, 58, 59, 63; V, 15, 16, 30, 43, 53.

75 **Water**—a bowl-like figure, with or without short horizontal lines within.

REFERENCES: Burton, p. 158; Copway, p. 136; James (1), p. 342; Kohl, p. 142; Mallery (3), p. 357; Mason, p. 111; Schoolcraft, I, 385, 386, 408; Tomkins, p. 79.

TEXT: I, 2, 4; II, 6, 7, 10, 16; III, 12, 16, 17, 18; IV, 13, 14, 61; V, 47, 50.

76 **Water, body of, showing both coasts**—the usual bowl-like symbol for water, with the bottom line swinging above the water line on both sides to form the land symbol on each side.

TEXT: III, 16, 17, 18.

77 **Water monster**—serpentlike devices usually striped with transverse lines.

REFERENCE: Copway, pp. 134, 136.

TEXT: I, 14; II, 11.

78 **Weapons**—short lines at right angles to the ends of arms.

TEXT: II, 2, 3, 9; III, 4; IV, 15.

79 **Whites, Christians**—a circle surmounted by a small cross, following a general system in the Walam Olum of indicating races and tribes.

REFERENCES: Tomkins, p. 81. Used by Eskimo to represent Christ (Schmitt, I, 241, Urkunde 11, no. 5; II, 11, 5).

TEXT: V, 40, 59, 60.

80 **Wigwam**—a dome-shaped figure.

REFERENCES: Kohl, pp. 286, 287, 387, 388. The archaic Chinese used a figure like this for house (Wieger, p. 101). In Crete a granary was portrayed in much the same fashion (Evans, IV, 622).

TEXT: III, 8.

81 **Wind**—a pair of short diagonal lines above the ground line, one on each side of a glyph.

REFERENCE: Tomkins, p. 80.

TEXT: I, 7; III, 2.

Year, *see Day or year* (16).

PHONETIC IMPLICATIONS

It should be noted that there are a few indications that some of the Walam Olum glyphs are phonetic implications, as pointed out by C. F. Voegelin.

Certain types of triangles, for instance, represent "island," "friendly," "hidden," or "mountain." These words in the Delaware language have a nasal (labial and labial-alveolar) and plosive (alveolar-velar), or front-of-mouth sounds.

The words "death," "absence," and "south," all indicated by figures below a base line, have a front palatal lateral (in the last example, a front palatal semi-vowel), or middle-mouth sounds.

"Snake tribe," and "evil," depicted by an inverted caret, have a common denominator sound category in the Delaware: fricative velar-laryngeal, or back-of-mouth sounds.

There are parallels in the English language, one being the letters "fl," connoting quick motion, as in flame, flicker, fly, flee and flea, or even "flivver."

PICTOGRAPH BIBLIOGRAPHY

(1) Brinton, Daniel Garrison, "Impressions of the Figures on a 'Meday Stick,'" in *Proceedings of the Academy of Natural Sciences of Philadelphia*, 1884 (Philadelphia, 1885), p. 278.

(2) ———, *The Lenâpé and Their Legends; With the Complete Text and Symbols of the Walam Olum, a New Translation, and an Inquiry into Its Authenticity* (D. G. Brinton, Philadelphia, 1885).

(3) ———, "On an 'Inscribed Tablet' from Long Island," in *The Archaeologist*, I, No. 11 (Waterloo, Ind., November, 1893), pp. 201-3.

(4) ———, *On the Ikonomatic Method of Phonetic Writing, with Special Reference to American Archaeology* (Philadelphia, 1886).

Burton, Richard F., *The City of the Saints, and across the Rocky Mountains to California* (London, 1862).

Cadzow, Donald A., "Bark Records of the Bungi Midéwin Society," in *Museum of the American Indian, Heye Foundation, Indian Notes*, III, No. 2 (New York, April, 1926), pp. 123-34.

Clark, William Philo, *The Indian Sign Language* . . . (Philadelphia, 1885).

Copway, George, *The Traditional History and Characteristic Sketches of the Ojibway Nation* (London, 1850).

Cressman, Luther S., *Petroglyphs of Oregon* (University of Oregon Monographs, *Studies in Anthropology*, No. 2, Eugene, June, 1937).

(1) Densmore, Frances, *Chippewa Customs* (U. S. Bureau of American Ethnology, *Bulletin 86*, Washington, D. C., 1929).

(2) ———, *Chippewa Music* (U. S. Bureau of American Ethnology, *Bulletin 45*, Washington, D. C., 1910).

Diringer, David, *The Alphabet: A Key to the History of Mankind* (New York, Philosophical Library, 1948).

Encyclopaedia Britannica (14th ed.), articles on "Chinese Language," V, 567-70, and "Hieroglyphs," XI, 545-48.

Evans, Sir Arthur, *The Palace of Minos . . .* (4 volumes in 6 . . ., London, 1921-35).

Farquharson, R. J., "On the INSCRIBED TABLETS, found by Rev. J. Gass in Mound near Davenport, Iowa," in *Davenport Academy of Natural Sciences, Proceedings*, II, part I (January, 1876-June, 1877), 103-15.

Fewkes, J. Walter, "Prehistoric Porto Rican Pictographs," in *American Anthropologist*, N. S., V(1903), 441-67.

Field, Henry, "Sinai Sheds New Light on the Bible," in *The National Geographic Magazine*, December, 1948, pp. 795-815.

Harrington, John P., "The American Indian Sign Language," in *Indians at Work*, March, 1938, pp. 8-13; July, 1938, pp. 28-32; August, 1938, pp. 25-30; September, 1938, pp. 24-32; November, 1938, pp. 24-29.

(1) Hoffman, Walter James, *The Beginnings of Writing* (London and New York, 1895).

(2) —, "Comparison of Eskimo Pictographs with those of other American Aborigines," in *Transactions of the Anthropological Society of Washington* [D.C.], II (1883), 128-46.

(3) —, "The Midéiwian or 'Grand Medicine' Society of the Ojibwa," in U. S. Bureau of American Ethnology, *Annual Report*, 1885-86 (Washington, D. C., 1891), pp. 143-300.

(4) —, "Pictography and Shamanistic Rites of the Ojibwa," in *American Anthropologist*, I (1888), 209-30.

Jackson, A. T., *Picture-Writing of Texas Indians* (University of Texas Publications, *Anthropological Papers*, II, Austin, 1938).

(1) James Edwin (ed.), *A Narrative of the Captivity and Adventures of John Tanner* . . . (New York, 1830).

(2) —, *Account of an Expedition from Pittsburg to the Rocky Mountains, Performed in the Years 1819, 1820* . . . (3 volumes. London, 1823).

Karlsgren, Bernhard, *Sound and Symbol in Chinese* (London, 1923).

Kohl, Johann Georg, *Kitchi-Gami, Wanderings Round Lake Superior* . . . (London, 1860).

Lahontan, Baron de, *New Voyages to North-America* . . . (2 volumes. London, 1703). "An Explanation of the Hieroglyphicks . . ." is given in II, 86-89.

McClintock, Walter, *Painted Tipis and Picture-Writing of the Blackfoot Indians* (Southwest Museum Leaflets, No. 6, Los Angeles, 1936).

(1) Mallery, Garrick, "Pictographs of the North American Indians," in U. S. Bureau of American Ethnology, *Annual Report*, 1882-83 (Washington, D. C., 1886), pp. 3-256.

(2) —, "Picture-Writing of the American Indians," in U. S. Bureau of American Ethnology, *Annual Report*, 1888-89 (Washington, D. C., 1893), pp. 3-822.

(3) —, "Sign Language among North American Indians . . .," in U. S. Bureau of American Ethnology, *Annual Report*, 1879-80 (Washington, D. C., 1881), pp. 263-552.

Mason, William Albert, *A History of the Art of Writing* . . . (New York, 1920).

Mercer, Henry Chapman, *The Lenape Stone; or the Indian and the Mammoth* (New York, 1885).

Orchard, William C., "Present-day Pictographs," in Museum of the American Indian, Heye Foundation, *Indian Notes*, I, No. 2 (New York, April, 1924), pp. 70-73.

Over, W. H., "Indian Picture Writing in South Dakota" (University of South Dakota Museum, Archaeological Studies, Circular IV, mimeographed, Vermillion, South Dakota, 1941).

Posnansky, Arthur, *Tihuanacu, The Cradle of American Man* (I- , New York, 1945-).

Reagan, Albert B., "Picture Writing of the Chippewa Indians," in *The Wisconsin Archaeologist*, N. S., VI, No. 3 (June, 1927), 80-83.

Salomon, Julian Harris, *The Book of Indian Crafts and Indian Lore* (New York, 1928).

Schmitt, Alfred, *Untersuchungen zur Geschichte der Schrift. Eine Schriftentwicklung um 1900 in Alaska*, with the collaboration of the Rev. John Hinz (2 volumes. Leipzig, 1940).

Schoolcraft, Henry R., *Information Respecting the History, Condition and Prospects of the Indian Tribes of the United States* . . . (6 volumes. Philadelphia, 1851-57).

Seton, Ernest Thompson, *Sign-Talk, a Universal Sign Code* . . . (New York, 1918).

Smith, Harlan I., "A Pictograph on the Lower Skeena River, British Columbia," in *American Anthropologist*, N. S., XXIX (1927), 611-14.

Speck, Frank G., *A Study of the Delaware Indian Big House Ceremony* . . . (Publications of the Pennsylvania Historical Commission, II, Harrisburg, 1931).

Steward, Julian H., *Petroglyphs of California and Adjoining States* (University of California Publications in American Archaeology and Ethnology, XXIV, No. 2, Berkeley, 1929).

Tompkins, William, *Universal Indian Sign Language of the Plains Indians* . . . (San Diego, 1937).

Voegelin, Erminie W., "Notes on Ojibwa-Ottawa Pictography," in *Proceedings of the Indiana Academy of Science*, 1941 (Indianapolis, 1942), pp. 44-47.

Wardle, Helen Newell, "Stone Ceremonials in Relation to Algonkin Symbolism," in *Proceedings of the Academy of Natural Sciences of Philadelphia*, LXXV (1924), 379-91.

Wieger, Leon, S. J., *Chinese Characters, Their Origin, Etymology, History, Classification and*

Significance . . ., translated into English by L. Davrout, S. J. (2d ed. Hsien-hsien, Catholic Mission Press, 1927).

Wilder, George Durand, and Ingram, James H., *Analysis of Chinese Characters* (Peking, North China Union Language School, 1922).

PART II

HISTORY OF THE WALAM OLUM MANUSCRIPT AND PAINTED RECORDS

BY PAUL WEER

WHEN we consider the slender chain of circumstances which preserved Rafinesque's manuscript of the Walam Olum, the inevitable conclusion is that here indeed were miracles performed. The material passed from its unsung collector Dr. Ward (1820) to Rafinesque, to Brantz Mayer, founder and first secretary of the Maryland Historical Society, to E. G. Squier, back to Mayer, and finally to Daniel G. Brinton (1884). Somewhere along this line the original painted records were lost. The Rafinesque manuscript is now in the Brinton Memorial Library of the University Museum, at the University of Pennsylvania, Philadelphia. Photostatic and photographic copies are in the library of the Indiana Historical Society. A copy of the Rafinesque manuscript prepared by Henry C. Mercer is the property of the New York Public Library.

In our effort to trace the Walam Olum back to Dr. Ward, the first white man to obtain it, and to identify this elusive doctor, we have followed many fruitless paths. But since this study is primarily a scientific investigation and the story is not yet complete and further researches will doubtless be made, every line of study we have followed has been included here in order that future workers will know what has already been done.

Brinton had not found the Rafinesque manuscript in 1883. In his *Aboriginal American Authors* he characterized the Walam Olum as one of the most curious examples of aboriginal American authorship: The early history of the Lenape tribe "written in that idiom, with mnemonic symbols attached." He was able to trace the manuscript to E. G. Squier, but concluded with the statement: "I have

not been able to find the original."¹ It is evident that shortly thereafter an informant advised him of the then present ownership—the family of the late Brantz Mayer, of Baltimore. In 1885 Brinton wrote:² "Having obtained the original text complete about a year ago, I printed a few copies and sent them to several educated native Delawares with the request for aid in its translation and opinions on its authenticity." The manuscript and other Rafinesque papers "came into the possession of the Hon. Brantz Mayer, of Baltimore, distinguished as an able public man and writer on American subjects, from whose family I obtained them." The Mayer family were custodians of the Rafinesque manuscript approximately thirty-eight of the sixty-two years which span its history from Rafinesque (1822) to Brinton (1884).

When Rafinesque died in Philadelphia, September 18, 1840, his financial affairs were in a deplorable state. With funds received from the sales of a patent medicine that he had concocted, he brought out during his last four years a considerable amount of privately printed material, among which were *The American Nations* and *A Life of Travels*, both published in 1836. The sales of these and other items brought little or no return; and his estate did not provide funds for a decent burial. Through the good offices of his friend and executor, the distinguished Dr. James Mease, of Philadelphia, assisted by S. S. Haldeman, C. A. Poulson, and possibly other gentlemen of science, a portion of the Rafinesque manuscripts and specimens were saved from the fate which overtook most of his property and collections—the Philadelphia public dump. Two years after Rafinesque's death Haldeman wrote that he and Poulson had "many of Rafinesque's unpublished MSS. and drawings."³ Seven years later Haldeman presented to the Academy of Natural Sciences of Philadelphia the Rafinesque material on botany and shells, under the presentation notice: "Original MSS. of Rafinesque presented to the Academy by S. S. Haldeman, November 13, 1849."

In the University Museum, at Philadelphia, among the papers in the Brinton Memorial Library, there is a brown Manila paper wrapper which carries this in-

¹Brinton, Daniel G., *Aboriginal American Authors . . .* (Philadelphia, 1883), pp. 20-21n. Here and elsewhere the words "Lenape" and "Delaware" must be understood to be interchangeable. Lenni Lenape or more simply Lenape was the ancient tribal name. The name Delaware, after Lord de la Warre, was given to the Lenape and to the

river and bay on which they were living by the English.

²Brinton, Daniel G., *The Lenâpé and Their Legends . . .* (Philadelphia, 1885), pp. v, 162-63.

³Haldeman, S. S., "Notice of the Zoological Writings of the Late C. S. Rafinesque," in *American Journal of Science and Arts*, XLII (1842), 287.

scription in Mayer's handwriting: "Brantz Mayer, Esq., Maryland Hist. Society, Baltimore, Maryland." Written on the reverse (inside) is the following: "Memorandum: The enclosed original papers in the Manuscript of Mr. Rafinesque were given to me some thirty years ago—(loaned by me to Squier when writing his ANTIQUITIES with Davis—) and contain the first real antiquarian researches in the U. States, properly undertaken. Brantz Mayer, Sunday, January 30, 1876." Below the signature and date he wrote,

"Rafinesque papers
American Antiquities
Ancient geography
and his Olum Wolum."

It was this bundle that Brinton acquired from the Mayer family, for all—that is the three manuscripts and the wrapper—are in the University Museum, placed there by Brinton. Therefore, the Rafinesque manuscript of the Walam Olum was given to Mayer "some thirty years ago" before 1876, which coincides with the distribution of other manuscripts and specimens saved from oblivion after Rafinesque's death by Dr. Mease and his friends.

Brantz Mayer was appointed secretary to the American Legation in Mexico City in 1841. He spent one year in Mexico, returning by way of New Orleans to Baltimore, in December of 1842. During his Mexican sojourn he acquired a great interest in that country's history and prehistory which, incidental to our subject, led to the writing of an authoritative history of Mexico that had a wide distribution throughout the Americas and in Europe because of its timely appearance just before our war with Mexico. Stimulated by his contact with historical horizons, one of Mayer's chief objectives, upon his return to Baltimore, became the organization of a historical society in the state of Maryland. Gathering together a group of interested associates, he developed the idea which culminated in January, 1844, in a called meeting, held in Baltimore, at which was set in motion the preliminary organization of the Maryland Historical Society. On April 5 of the same year a permanent organization was effected. Mayer was elected the society's secretary, which office he held until elevated to the presidency in the year 1867.

During the society's first year Mayer made a contribution to its collections

which has provided us with the only clue we have concerning the history of the original Walam Olum pictographs. In the minutes of the meeting of the society for December 5, 1844, there is the statement, "From Brantz Mayer, esq., was received a large collection of rare and curious pamphlets, on various subjects, for the library . . . several autograph letters from persons of distinction; also pieces of birch bark with picture writing and hieroglyphics by northwestern Indians, and other curiosities."⁴ Could these be some of the Walam Olum pictographs? In the 1840's "northwestern Indians" meant Indians in the Old Northwest Territory. Moreover, and this is very important, the date coincides closely with the time when Mayer acquired the manuscript. In pursuit of this tip we went to Baltimore to make inquiry at the Maryland Historical Society.⁵

The original gift book of the society for the year 1844 carried the entry as above noted, but did not describe the gift. However, after the entry is the following pencil notation: "Withdrawn by him, September 29, 1875. B. M." Did B. M. dispose of the pieces, or did he wrap them up with the Rafinesque manuscripts four months later—January 30, 1876? Rather than simply list the three manuscripts he tied up in the old Manila wrapper that Sunday in January, 1876, he made an exception of the last item by expanding it to "and his Olum Wolum." This may seem to be a mere trifle, and possibly so, but it has always suggested to at least one person the possibility that there may have been more material than merely the manuscripts. As we know, the manuscripts themselves escaped the sale of a large collection of Mayer's Americana conducted by Sullivan Bros. and Libbie, of Boston, November 11, 12, 13, 1879, a few months after his death. But were the pictographs sold at this auction? Nothing suggesting them is described in the catalogue of sale, a copy of which is in the Maryland Historical Society. We did find a partial list of the purchasers at this sale. These, fortunately, were chiefly large institutions still in existence. In the hope that the pictographs might have been acquired by one or more of them, and were still in their collections, we questioned all of them, and in every case received a negative answer. It is very certain they did not reach Brinton's hands. He would have taken the greatest care of the actual pieces, and

⁴Quoted in *Niles' National Register*, January 18, 1845 (LXVII, no. 20, p. 312).

⁵See Weer, Paul, "Brantz Mayer and the Walam Olum Manuscript," in *Proceedings of the Indiana Academy of Science*, 1944 (n. p. [1945]), pp. 44-48.

would have fully described them. Carl and Erminie Voegelin are continually buoyed up by the hope they may be discovered among the Lenape in Canada. We may never know whether or not the Mayer pictographs were some of the Walam Olum originals. If they were, these were housed in the collections of the Maryland Historical Society for almost thirty-one years, from December 5, 1844, to September 29, 1876.

Mayer recorded, on the Manila wrapper with which he bound his Rafinesque material in 1876, that this material was lent to Ephraim George Squier while Squier and his co-author, E. H. Davis, were writing their famous volume, the first publication issued by the Smithsonian Institution, *Ancient Monuments of the Mississippi Valley*. The authors made the following acknowledgment: ". . . several plans and notices . . . are presented in the succeeding chapters upon the authority of the late Prof. C. S. Rafinesque. This gentleman, while living, devoted considerable attention to the antiquities of the Mississippi valley. . . . His notes and plans . . . at his death found their way into the possession of Brantz Mayer, Esq., of Baltimore, late Secretary of the American Legation to Mexico. This gentleman placed them in the hands of the authors, with liberty to make use of the information they contained."⁶

Squier and Davis did not mention the Walam Olum, but it is certain that the manuscript was included in the material lent them, or to be more correct, lent by Mayer direct to Squier in the year 1846.⁷

The same year that *Ancient Monuments* was published, Squier accorded Rafinesque's publication of twelve years' priority its first recognition. He read a paper before a meeting of the New York Historical Society on June 6, 1848, entitled: "Historical and Mythological Traditions of the Algonquins, with a Translation of the Walum Olum, or Bark Record of the Lenni-Lenape."⁸ He expressed his conviction in the authenticity of the records, but voiced his disappointment—as, alas, was the case with Brinton and ourselves—that Rafinesque had not docu-

⁶Squier, E. G., and Davis, E. H., *Ancient Monuments of the Mississippi Valley . . .* (Smithsonian Contributions to Knowledge, I, Washington, D. C., 1848), xxxvi.

⁷Brantz Mayer, Baltimore, April 11, 1851, to E. G. Squier, New York City, "Will you be kind enough to send me this week by Adams's Express the whole of the Rafinesque papers which I lent you in 1846?" E. G.

Squier Papers, Archaeology, Box 1, MS Division, Library of Congress.

⁸This paper was published in *The American Review*, no. xiv, February, 1849, pp. 273-93, and also in *The Indiana Miscellany . . .*, edited by W. W. Beach (Albany, N. Y., 1877), [9]-42. An autographed reprint is in the Indiana Historical Society Library.

mented the actual occurrences concerning their discovery and the conditions under which they were transcribed and translated. There is proof that Squier's work was done from the original Rafinesque manuscript,⁹ loaned to him by Mayer. In the 1877 reprint of his paper, after the statements, "there is slight doubt that the original is what it professes to be, a genuine Indian record. The evidence that it is so is, however, rather internal and collateral than direct," there is a footnote, "Since the above was written, a copy of Rafinesque's *American Nations*, published in 1836, has fallen under my notice. The only additional information we have respecting it, is that it was 'obtained by the late Dr. Ward of Indiana, of the remnant of the Delawares on the White river.'"¹⁰ Squier makes no mention of an endeavor to identify Dr. Ward, and it is reasonable to assume that he made none.

Mayer was writing to Squier as early as March 10, 1850, asking for the return of the Rafinesque papers. At least twice during 1851, and again twice in 1854, he wrote asking the return of his loan.¹¹ An interesting feature of the Mayer letters is the author's insistence on making plain the fact that the Rafinesque papers were not his property: that they were lent to him and might "be reclaimed at any moment." We do not know what this means, unless it was to put pressure on Squier to accelerate return of the papers.

The known history of the Walam Olum from Rafinesque's acquisition of it in 1822 until his death in 1840, is very meager. He said, "the contents were totally unknown to me in 1824, when I published my *Annals of Kentucky*."¹² At his departure from Lexington for Philadelphia in 1826 he took the material with him. In the latter city he had access to the Lenape-English and German dictionaries of the Moravian missionaries, to quote his own words, "the help of Zeisberger, He[c]kewelder and a manuscript dictionary."¹³ With the aid of these his translations were completed in the year 1833, and were published at his own expense three years later. He appended to the five songs the historical "fragment" which he

⁹ Squier's manuscript copy of Rafinesque's translation into English of all the verses of the five Walam Olum songs is in the E. G. Squier Papers, *loc. cit.*

¹⁰ *The Indian Miscellany*, p. 14n.

¹¹ Among the E. G. Squier Papers in the Library of Congress there are five letters written by Mayer to Squier requesting return of the Rafinesque papers—March 10, 1850; March 23, April 11, 1851; April 13,

18, 1854. Copies in Indiana Historical Society Library. Also, on April 11, 1851, Mayer wrote Spencer F. Baird, secretary of the Smithsonian Institution: "I shall write to Mr. Squier for the Rafinesque papers." Letter of William N. Fenton, Bureau of American Ethnology, to author, January 27, 1944.

¹² *The American Nations . . .* (Philadelphia, 1836), p. 151.

¹³ *Ibid.*

says was translated by John Burns. He does not say where he acquired this, nor does he identify John Burns. There is nothing more to record for this period.

Aside from the fact of its preservation, the history of the Walam Olum material after 1822 is of secondary importance to the documentation of the transfer of the original painted records from the Lenape through Dr. Ward to Rafinesque; and the circumstances surrounding Rafinesque's procurement of the words to accompany them. Rafinesque simply reported the accessions as follows: "Having obtained through the late Dr. Ward of Indiana, some of the original *Walam-Olum* (painted record) of the Linapi tribe of Wapahani or White River, the translation will be given of the songs annexed to each." "Olum . . . implies a record, a notched stick, an engraved piece of wood or bark. . . . These actual *Olum* were at first obtained in 1820, as a reward for a medical cure, deemed a curiosity; and were unexplicable. In 1822 were obtained from another individual the songs annexed thereto in the original language; but no one could be found by me able to translate them."¹⁴ On his original manuscript Rafinesque wrote: "This Mpt. and the wooden original was procured in 1822 in Kentucky, but was inexplicable till a deep study of the Linapi enabled me to translate them with explanations. (Dr. Ward)." The words "Dr. Ward" are written in the same bold Rafinesque handwriting characteristic of all his papers.

Who was this Dr. Ward? There is not even the hint of a suggestion that Squier tried to identify him or the individual who gave Rafinesque the Delaware text. Brinton made a valiant effort to discover Ward and finally concluded that "the late Dr. Ward, of Indiana," was not an Indianan at all, but rather a member of the Ward family of Cynthiana, Kentucky, one of whom was reported to have been a friend of Rafinesque's during the latter's residence in Lexington—a man known to share his archaeological interests.¹⁵ Rafinesque, discussing the events of the year 1824, wrote: "My friend Mr. Ward took me to Cynthiana in a gig, where I surveyed other ancient monuments and found a fine locality for fossils."¹⁶

¹⁴*Ibid.*, pp. 122, 151.

¹⁵Brinton, *The Lenapé and Their Legends*, pp. 153-54.

¹⁶*A Life of Travels . . .* (Philadelphia, 1836), p. 74; 1944 reprint, p. 325. This Mr. Ward is indexed in the reprint as Andrew Ward. There was at this time in Cynthiana an Andrew Ward, a Virginian who came to Kentucky

as a boy and lived for a time in Jessamine County then removed to Harrison (county seat Cynthiana) in 1800, where he lived until his death in 1842. He served in the War of 1812 under General Harrison. *History of Bourbon, Scott, Harrison and Nicholas Counties, Kentucky . . .* (Chicago, 1882), p. 687. For other mention of Andrew Ward, see *post*, p. 255.

“THE LATE DR. WARD, OF INDIANA”

Rafinesque's accession of the Walam Olum was a fortuitous act of collecting! He was the most qualified individual then in the Ohio Valley to appreciate its value; and yet, in 1824 he said he had no idea concerning its significance. By many of his contemporaries Rafinesque was considered an unscrupulous seeker after publicity; but, as he often said: “All in the interest of Science!” Nothing could possibly have been less sensational than his handling of the Walam Olum. The criticism here is only that which was justly lodged against him by all of his contemporaries in his many fields of endeavor—an avid collector, but in too much hurry to be accurate, and often obscure!

Squier and Brinton were the only scholars before our generation who had enough intellectual curiosity to examine the Rafinesque Walam Olum study. Both were disturbed by his failure to identify Dr. Ward and document the circumstances concerned with the acquisition. But throughout the past one hundred years Rafinesque's stature as a scientist has been steadily growing. Among his many contributions to the natural sciences he pronounced the general theory of evolution a generation before Darwin and championed the new principle of natural botanical classification which has since become universally adopted. In the field of botany alone, Harvard University and the Academy of Natural Sciences of Philadelphia have recognized his genius and are re-examining his contributions to that science. In like spirit the Indiana Historical Society is re-examining his contributions to prehistory. The fact that the original painted records are reported to have been found in Indiana makes the Walam Olum a logical research legacy of the Society.

The Delaware had lived in Indiana perhaps twice. The “middle reaches of White river” where the Delaware towns were located last had belonged for many generations to the great Miami confederacy. However, the Walam Olum suggests that here on White River, in Indiana, the Lenape may have lived long ago when they tarried for several generations in this good land on their way eastward to their ultimate homeland on the Delaware River. As early as 1714 White contact was driving the Lenape back westward toward their ancient fires in the Ohio

Valley. About 1770 the Miami gave their "grandfathers," the Delaware, permission to rekindle their fires on White River. John Johnston, the United States agent to the Indians, has made quite clear the reason why the Miami consented to this occupancy of some of their most choice territory. This crafty tribe wanted to set up a buffer against the northwestward surge of the Whites.¹⁷ About this time and even before, small, roving, irresponsible bands of Delaware and other remnant groups had penetrated as far as southern and southwestern Indiana. As early as 1779 the Whites were trying to drive the Delaware from the environs of Vincennes.¹⁸ Louis Lorimer, a British trader driven from western Ohio in 1782 by George Rogers Clark, drifted down into the Lower Wabash country to set up a new trading post which attracted much of this restless, wandering Indian population. In the early 1790's Lorimer made a deal with the Spanish government at New Orleans for trading privileges at Spanish Cape Girardeau in our present Missouri, in return for drawing with him his *lower* Wabash Indians to act as a buffer protection for the Spanish against the Osages.¹⁹ Despite this deflection a Delaware town sprang up at the junction of the East and West forks of White River. Moses Austin spoke of it in 1796 as a village of about twenty families.²⁰ However, Delaware titles to this and all other lands on the Lower Wabash and White rivers were extinguished by Governor Harrison, acting for the United States government, at the Treaty of Vincennes, signed August 18, 1804, and at the Treaty of Fort Wayne, signed September 30, 1809.²¹

The only Delaware (Lenape) towns on White River, in Indiana, in 1820; the only Delaware towns anywhere in the state of Indiana as late as 1820, were the towns still remaining of the original group on the White River in our present counties of Delaware, Madison, Hamilton, and Marion.²² Not until immediately after

¹⁷Conover, Charlotte Reeve (ed.), *Recollections of Sixty Years of John Johnston* (Dayton, Ohio, 1915), pp. 19-20.

¹⁸Alvord, Clarence W. (ed.), *Kaskaskia Records 1778-1790* (*Illinois Historical Collections*, V, Springfield, 1909), pp. 97-98.

¹⁹Shoemaker, Floyd C. (ed.), *Missouri Day by Day* (2 volumes. State Historical Society of Missouri, Jefferson City, 1942, 1943), II, 7-8; Faye, Stanley, "Indian Guests at the Spanish Arkansas Post," in *Arkansas Historical Quarterly*, IV (1945), 99-108.

²⁰Garrison, George P. (ed.), "A Memorandum of M.

Austin's Journey from the Lead Mines in County of Wythe in the State of Virginia to the Lead Mines in the Province of Louisiana West of the Mississippi, 1796-1797," in *American Historical Review*, V (1899-1900), 528.

²¹Kappler, Charles J. (ed.), *Indian Affairs, Laws and Treaties* (2 volumes, Washington, D. C., 1904), II, 70-72, 101-2.

²²A map showing the location of these towns is in Charles N. Thompson, *Sons of the Wilderness. John and William Conner* (*Indiana Historical Society Publications*, XII, Indianapolis, 1937), facing, p. 42.

the Treaty of Greenville, in 1795, had the Delaware begun establishing these towns. Encouraged by the hope that here in their "ancient seats" they might set up a powerful Indian community and re-establish the dignity and prestige of their tribe, they sent messages in all directions to Delaware and other groups, chiefly to Algonquian tribes, to join them in their newly established towns; and it was this general invitation that brought to White River from their eastern Ohio towns a few Christian Delaware and their Moravian missionaries.²³

From its very inception the Delaware ambition was doomed to failure because of the utterly debauched condition of their people. Whiskey and disease were reaping a terrible toll. A high mortality rate for the towns was inevitable. When the missionaries arrived on White River in 1801, they reported eleven Indian towns—four up the river from the mission, seven downstream from them. The next year, 1802, they reported nine towns.²⁴ In 1816, Captain Hendrick, a Stockbridge Indian chief living in "the middle town on White river," reported to Jedidiah Morse that there were altogether "five towns or villages, containing about 1,000 souls of Delawares, Munsees, Moheakunnuks and Nantikokes." Reporting to Morse two years later (1818), the same chief said that the Indians on White River numbered about 800, and their principal chief was Anderson who lived in his town where the city of Anderson now stands.²⁵

The courageous Moravian missionaries soon realized that their devoted efforts in behalf of the Indians only added confusion to chaos. After a struggle of five years they closed the mission in September, 1806, and were glad to get out with their lives. In June, 1813, Governor Posey sent an expedition of about 137 mounted men under Col. Joseph Bartholomew and Col. John Tipton against the Delaware towns to punish some hostile Indians lurking there. Hardly had this expedition returned to the White settlements, when a second, consisting of 573 men under the command of Col. William Russell went out (July 1 to July 23, 1813) against the Miami villages near the mouth of the Mississinewa River. In this second foray

²³Gipson, Lawrence Henry (ed.), *The Moravian Indian Mission on White River* (*Indiana Historical Collections*, XXIII, Indianapolis, 1938).

²⁴*Ibid.*, pp. 104, 476.

²⁵Morse, Jedidiah, *A Report to the Secretary of War of the*

United States, on Indian Affairs . . . (New Haven, 1822), Appendix, pp. 109, 110; *Handbook of American Indians North of Mexico* (2 parts, U. S. Bureau of American Ethnology, *Bulletin* 30, Washington, D. C., 1907, 1910), pt. 1, p. 57.

the troops passed through some of the Delaware towns.²⁶ Finally, at the Treaty of St. Marys on October 3, 1818, the Delaware surrendered their lands in Indiana to the United States and two summers later were assembling at their towns on White River to make their journey across the Mississippi to new lands assigned them in what is now Missouri. Before 1820 the Indians had abandoned the easternmost towns and were centered around Anderson, "the seat of government of the Delaware nation,"²⁷ as Morse reported. In one of these about-to-be-deserted towns "the late Dr. Ward of Indiana" is reported to have obtained "some of the original Walam Olum" in the year 1820.

In that year the Delaware towns were most accessible to the Whites from the southeast, by way of the Whitewater Valley. White families were then traveling over the Whitewater trail²⁸ and on through Andersontown to the Horseshoe Prairie settlement near William Conner's Indian trading post in Hamilton County.²⁹ Indianapolis was not established yet. By 1820 the Whitewater Valley already had a White population of 28,832. There could be no reason to question the possibility that among these numbers in the year 1820 there was a Dr. Ward who made the very short and easy journey over the trail to the Delaware towns. This suggests the reasonable assumption that in 1820 a Dr. Ward lived in the Whitewater Valley.

The first step in searching for an early Indiana physician is our Indiana medical histories.³⁰ In none of these, nor in a vast amount of general reading of secondary

²⁶Dillon, John B., *A History of Indiana...* (Indianapolis, 1859), pp. 524-25. In 1820 when Tipton and Bartholomew were at William Conner's cabin on White River as members of the commission to find a site for the future capital of the State of Indiana, Tipton reminisced in his diary thus: "Sunday, May 28, 1820. After dinner we went to the Indian huts found the men playing their favorite game which they call Muckuson which is played with a bullet and 4 muckusons. Then went to view the ground on which Bartholomew and me had incamped in June 17, 1813." *The John Tipton Papers* (3 volumes. *Indiana Historical Collections*, XXIV, XXV, XXVI, Indianapolis, 1942), I, 204.

²⁷Bolton, Nathaniel, *Early History of Indianapolis and Central Indiana* (*Indiana Historical Society Publications*, I, No. 5, Indianapolis, 1897), pp. 173-74.

²⁸This trail started on the Ohio at the mouth of the Whitewater, ran up the latter river to the forks at Brookville, along the East Fork to Eli Creek, and northwestward through the site of Connersville up to New Castle.

Here it branched, one sector going to Andersontown and the other to Muncietown. That section of the trail from New Castle to Muncie became of secondary importance to the section from New Castle to Anderson. Heineman, John L., *The Indian Trail down the Whitewater Valley...* (Indianapolis, 1915), p. 6; Lawlis, Chelsea L., "Settlement of the Whitewater Valley, 1790-1810," in *Indiana Magazine of History*, XLIII (1947), 35-36; Thompson, *Sons of the Wilderness*, map facing p. 42; Indianapolis *Indiana Journal*, September 18, 1827, advertising sale of lots in Muncietown.

²⁹Shirts, Augustus Finch, *A History of the Formation, Settlement and Development of Hamilton County, Indiana, from the year 1818 to the Close of the Civil War* (n.p., 1901), pp. 8-10, 18-20.

³⁰There are several state and many local medical histories of Indiana. The classic state history is Dr. G. W. H. Kemper, *A Medical History of the State of Indiana* (Chicago, 1911).

and source material for the period circa 1820 in Indiana was there to be found in Indiana a practicing physician by the name of Ward.³¹ We did find in the United States census for 1820 thirty-one Ward families in the state, distributed in fourteen counties. Eleven of them were in Franklin County, four in Dearborn, three in Wayne, two in Randolph, and one in Fayette—all counties of the Whitewater Valley.

DR. WARD, OF KENTUCKY

Having failed in Indiana to identify a Dr. Ward, we turned to Kentucky. Following Brinton's conclusion that Rafinesque's Dr. Ward probably was one of the Cynthiana Wards, we next examined the Harrison County court records in Cynthiana. In the county clerk's office we found the records of suits for the collection of medical fees filed by Dr. John Russell Ward, in the years 1808 and 1809; also a suit against him for collection of his note in the year 1811. After this latter date he faded out of the Cynthiana setting, to reappear in 1816 at Carlisle, the newly established county seat of Nicholas County.

Subsequent research brought out the facts that he had married Clarissa Buckner, in Bourbon County, Kentucky, October 23, 1807; bought one of the first lots sold in the original Carlisle town sale in June, 1816; the following year was elected president of Carlisle's first bank; in 1828 sold his medical practice to Dr. Oliver Hazard Perry Stout, a graduate in the 1823 class of Transylvania Medical College; sold his Carlisle town and Nicholas County properties to John Mann, in 1829; and in the same year moved to Fulton, Callaway County, Missouri, where he died in 1834.³² Dr. John Russell Ward's residence in Carlisle, from 1816 to 1829, overlapped the years of the Rafinesque sojourn in Lexington, 1819 to 1826.

Provided with a Dr. Ward, of Kentucky, and apparently a Cynthiana Ward, we

³¹This search included examination of the U. S. census for Indiana for 1820, county, city, sectional, and special histories, and manuscript material. Notes made during the search are filed in the Indiana Historical Society Library. Efforts were also made to locate minutes or any records of the early district medical societies of the state. Nothing to help solve our problem was found. The first Dr. Ward to appear on the Indiana scene was Dr. U. (?) or W. (?) J. Ward of Noble County, a member of the Northeastern Indiana Medical Society in 1870.

Kemper, *Medical History*, pp. 98, 392. The second was Dr. John P. Ward who practiced at Princeton, Gibson County, in the eighties and nineties. Stormont, Gil R., *History of Gibson County Indiana . . .* (Indianapolis, 1914), pp. 178-79.

³²Weer, Paul, "Provenience of the Walam Olum," in *Proceedings of the Indiana Academy of Science, 1941* (Indianapolis, 1942), pp. 55-69; notes on the Walam Olum in Indiana Historical Society Library.

were ready to venture into Lexington to search for contacts between Rafinesque and *his* Dr. Ward whose initials and residence, by the way, were never revealed by the former. In Lexington we met Mrs. William T. (Maude Ward) Lafferty,³³ who told us that Dr. John Russell Ward was a brother of her grandfather, Andrew Ward, of Cynthiana. Also from family tradition prevailed the impression that the doctor was a friend of Rafinesque's. These statements have never been documented. Mrs. Lafferty's genealogy³⁴ does not list a brother John for her grandfather Andrew. To have carried our search for Dr. Ward—Rafinesque contacts into the midst of an historically and genealogically minded assembly of brilliant present-day Kentuckians, and not come up with all the answers, is an excellent example of how quickly and how easily unrecorded local history becomes irretrievably lost.³⁵

Rafinesque made his first trip to Kentucky in the spring and summer of 1818, at the request of his friend John D. Clifford, a business acquaintance of his father's. Clifford proposed to secure a professorship for Rafinesque at Transylvania. This was accomplished, and the following summer, 1819, Rafinesque returned to Lexington to begin his seven-year residence at the university as professor of botany and natural history. Aside from the fact that John D. Clifford was instrumental in bringing Rafinesque to Lexington, we are interested in him because his sister married the Reverend John Ward, of Christ Church, Lexington. The Reverend Ward was in St. Louis for about a year in 1819-20, but returned to Lexington where he later established a successful co-educational school. He was invited to become president of Transylvania, but declined. Was he Rafinesque's "Dr. Ward"? He and his wife must have known the young naturalist, but no contact between them can be proven.

³³Mrs. Charles F. Norton, librarian of Transylvania College, who made available to us all the Rafinesque material in her custodianship, introduced us to Mrs. Lafferty.

³⁴Lafferty, Mrs. Maude (Ward), "Life and Times of Andrew Harrison Ward" (copy in the University of Kentucky Library). The following story told in the genealogy is undocumented: "Uncle, Dr. John Ward, on his way west in 1820, stopped near White River, Indiana, where an epidemic was taking the lives of Indians there, and succeeded in checking it. In gratitude, they gave him

the Walam Olum. . . . He mounted his horse and rode all the way back to Lexington, Kentucky, to present it to his friend, Rafinesque, the great scientist."

³⁵We engaged a well-known Virginia genealogist, recommended by the Indiana State Library, to try to find out more than we could discover concerning Dr. John Russell Ward. We also suggested to Mrs. Norton, librarian at Transylvania, that a Kentucky genealogist or historian be employed to look into the problem. Virginia broke in the first eighth, Kentucky never left the post.

As early as the year 1814 Lexington was popularly called the "Athens of the West." Its population then of eight thousand supported the largest commercial center in the Ohio Valley west of Pittsburgh, and the first university west of the Allegheny Mountains. Horace Holley, a distinguished leader and brilliant scholar, came out from Boston in 1818 to assume the presidency of the university. Under his administration Transylvania achieved amazing heights, its prestige ranked with the great universities of the East, and its medical college was as famous as any in the nation. Unfortunately Kentucky's new social order lacked the stability necessary to uphold this brilliant flowering. The chaotic condition of the state's finances and the hostility of religious factions in the Kentucky legislature were contributing factors to the decline of the university. Lexington itself suffered from the pressure of economic conditions beyond its control. The river towns on the Ohio were beginning to feel the booms incident to the advent of the steamboat and by 1820 Lexington's population had dwindled to four thousand.

Unfortunately for Rafinesque, President Holley, a great classical scholar, was not particularly interested in the but recently recognized discipline of the natural sciences. Rafinesque enjoyed the stimulating social activities centering in the Holley home and in one of his manuscripts listed Mrs. Holley among his botanical collaborators. However, he could not get along with anyone who would not see eye to eye with him. The lack of support for his elaborate plans for a botanical garden in Lexington was a source of great disappointment. Finally he broke with Holley and the university in 1826 and stormed back to Philadelphia, never to return. The following year Holley started for the East by boat by way of New Orleans. During the voyage he contracted yellow fever and died at sea.

In all of the vast body of literature about Transylvania and Lexington in the golden period of Holley's regime, Rafinesque is consistently ignored and Dr. Ward never so much as mentioned.³⁶ Insofar as Rafinesque is concerned modern Transylvania has tried to repay the debt in some measure. Rafinesque's bones were removed from a pauper's grave in Philadelphia and ceremoniously interred under the steps of Morrison Hall on the college campus. The college and city of Lexing-

³⁶See lists of books, articles, and manuscripts examined, in *Walam Olum* notes in the Indiana Historical Society Library.

ton celebrated the Rafinesque Centennial Memorial, October 30, 1940, on which occasion the principal speaker was one of the world's most distinguished botanists—Dr. Francis W. Pennell of the Academy of Natural Sciences of Philadelphia.

The Fayette County Courthouse produced only one document of interest to us, the will of John D. Clifford who died May 8, 1820. No bequest was left to Rafinesque who wrote his friend Dr. Charles W. Short, Hopkinsville, Kentucky, on June 15, "You have heard of the loss of Mr. Clifford, it has been a heavy one for us all, and for me in particular. All the plans we had formed for the benefit of science are nearly defeated. But I shall endeavor to do what I can by myself."³⁷

The absence of an adequate news story about John Clifford at the time of his death was typical of the newspapers of that period. Copy consisted, entirely and invariably, of state and national politics, state and national papers and proclamations, foreign news reported by ship captains lately arrived from abroad, a literary section, business and professional notices, and boxed card-size advertisements. Quoting from the *Kentucky Gazette* for July 23, 1819: "Transylvania University: The trustees of this institution have unanimously elected the following gentlemen to professorships in the Medical School, connected with it: . . . C. S. Rafinesque, Esq., Professor of Botany and Natural History." In the *Kentucky Reporter*, November 19, 1821: "Adv. Transylvania University. Professor Rafinesque will deliver a public lecture introductory to a course of Medical Botany, Mineralogy, Medical Zoology, etc., in the Chapel of the University, on Wednesday next, 21st, November, at 12 o'clock. The Medical Professors, Students etc., are invited to attend, as well as the ladies and gentlemen of Lexington. If the weather should prove unfavorable, it will be postponed to the next Saturday, at the same hour." There was nothing in these papers, neither here nor anywhere in the United States, of this period of what we call human interest stories, such, for example, as the time, the place, and the persons involved in the discovery of an ancient Indian pictographic record falling into the hands of a doctor as a reward for a medical cure.

Equally disappointing was a series of brilliant letters from Kentucky by an

³⁷The letter is in the Short Papers, The Filson Club, Louisville.

unknown Virginian that appeared in the Richmond (Va.) *Enquirer* in April and May, 1825.³⁸ The letters written during the late winter and spring of that year were unsigned and the identity of the author has never been discovered. Most of the letters were from Lexington. The author was greatly impressed with Transylvania University, and spoke in the highest terms of President Holley. He attended lectures in various departments of the university, including the medical school. The doctors in the college and in Lexington were the subjects of enough interest to be mentioned in some detail. Before leaving Kentucky he visited a number of towns around Lexington, but not apparently either Cynthiana or Carlisle. And Rafinesque and Dr. Ward were not mentioned anywhere in any connection by this brilliant and interesting observer.

An authentic picture of Lexington in the days of Constantine Samuel Rafinesque and Horace Holley is to be found in the memoirs of William A. Leavy.³⁹ His parents came to Lexington from Carlisle, Pennsylvania, in 1788, and William was born in Lexington about 1796. He attended Transylvania University from 1803 to 1811, starting in the preparatory school, and graduated with honors. As was his father before, William A. Leavy was for many years a trustee of the university. He was a founder, and for many years on the board of the Lexington Public Library, and a member of the Transylvania Institute, a social club of which Rafinesque was secretary: a club composed of a select group of gentlemen, Transylvania professors and Lexington citizens, who met at the members' homes. Leavy was an original director, and later the treasurer for Rafinesque's proposed botanical garden in Lexington, the Transylvania Botanic Garden Association.⁴⁰

When the Leavy family came to Lexington its members were staunch Catholics, but William A. early became a Presbyterian. Lexington's Catholic church and its two Presbyterian churches all received very substantial aids from the Leavy family for many years. In spite of the strong, active feeling of Kentucky Presbyterians

³⁸Swem, Earl Gregg (ed.), *Letters on the Condition of Kentucky in 1825*. Reprinted from the Richmond *Enquirer* (New York, 1916).

³⁹Leavy, William A., "Memoirs of Lexington and its Vicinity," edited by Nina M. Visscher, in *Register of the Kentucky State Historical Society*, XL (1942), 107-31, 253-67, 353-75; XLI (1943), 44-62, 107-37, 250-60; XLII (1944), 26-53.

⁴⁰One entry in Rafinesque's account as superintendent of the botanical garden is of interest to us. Under date of April 5, 1825, he wrote: "Received many presents of seeds and plants from Messrs. Clay, Ward, Fowler and Megowan." Quoted in Harrison, Ida Withers, "The Transylvania Botanic Garden," in *The Journal of American History*, VII, no. 1 (Greenfield, Ind., 1913), pp. 901-9.

against Horace Holley, Leavy was a great friend and admirer of Transylvania's president. Here indeed was a gentleman generous and broadminded in his judgments, kindly and sympathetic in his contacts with all men. Here was a Kentuckian who, we thought, would be Rafinesque's friend! To our amazement, Rafinesque was just about the only person, saint or sinner, mentioned in the entire lengthy and intimate memoir, against whom the author was severe. There are only two references. The first, early in the narrative, referring to the unknown origin of the Indian mounds near Lexington, reads: "Of the Indian Mounds and what are called by the fanciful and visionary Dr. C. S. Rafinesque Circumvallatory Walls and Fortifications we know but little." The second, in connection with the affairs of the botanical garden, reads: "Professor Rafinesque was esteemed generally a visionary man. He was wholly unsuccessful in all his undertakings, and left Lexington with scarcely any means,—subscriptions were raised for him by his friends on his leaving."⁴¹

Leavy listed the names of three hundred students who were with him in Transylvania during the years 1803-11; and, in addition, many friends in the university during later years—as late as 1820. There were no Wards in any of these lists! For several pages he spoke concerning the lives and personalities of the physicians of his day in Lexington and the surrounding towns. The omission of a Dr. Ward—for whom there are court references at Cynthiana from 1808 to 1811, and other documented references of residence in Carlisle from 1816 to 1829—clearly indicate that Dr. John Russell Ward was a man unknown to fame. That he was a gentleman of some culture and learning is definitely suggested by the catalogue of his library at the time of his death.⁴² But further actual evidence about him, his training, his interests, is lacking.

The available places for obtaining formal medical education in the United States were limited in Dr. Ward's day. There was no well-organized medical department at Transylvania before the year 1816-17, and all records of this and other departments of the school were destroyed by fire in 1829. A medical department was established as early as 1799, and Dr. Samuel Brown and Dr. Frederick

⁴¹ Leavy, "Memoirs," in *Register of the Kentucky State Historical Society*, XL, 115; XLI, 127.

⁴² Stella Anthony (Mrs. J. Frank) Thompson, Colum-

bia, Mo., to Mrs. Charles F. Norton, Transylvania College, March 1, 1941, in Walam Olum notes, Indiana Historical Society Library.

Ridgely (former surgeon-general with General Anthony Wayne's army) were appointed as teachers, but instruction was very informal.⁴³ In 1808, the year of our earliest documentary evidence for Dr. John Russell Ward, there were six medical schools in this country: the University of Pennsylvania (founded in 1765), College of Physicians and Surgeons, New York City (1767), Harvard Medical School (1783), the department at Dartmouth College (1797), the College of Medicine of Maryland, Baltimore (1807), and Bellevue Hospital, New York City (1804). If Dr. Ward had attended one of these schools it seems impossible that there should be no record or no common knowledge of it. If he had attended medical lectures abroad, that fact would be mentioned in Kentucky history. He may well have received instruction from one of the physicians living in or near Lexington, just as Dr. Daniel Drake had studied under Dr. William Goforth in Cincinnati; his instructor, indeed, may have been Dr. Ridgely, who is known to have given private instruction and lectures, yet there are no records to confirm this speculation.

RAFINESQUE'S DR. WARD, THE BOTANIST

The sources for Brinton's conclusion that Rafinesque's "late Dr. Ward, of Indiana," was a member of the Cynthiana, Kentucky, Ward family, had by this time become a question of considerable importance. Had Rafinesque's statement, in 1824, that he had gone to Cynthiana with Mr. Ward⁴⁴ been Brinton's only supporting evidence which, after all, could be nothing more than a hunch; or had he found documented information he neglected to mention? We went to Philadelphia to examine the available Brinton material. This turned out to be unbelievably meager in the repositories we considered most likely to house the documents we were seeking: 1. the Brinton Memorial Library at the University Museum; 2. the library of the American Philosophical Society, of which society Brinton had been an active, distinguished member for many years; 3. the library of the Delaware County Academy of Science, at Media, Pennsylvania, the Philadelphia

⁴³Norwood, William Frederick, *Medical Education in the United States before the Civil War* (Philadelphia, 1944), pp. 289-90. See also Juettner, Otto, *Daniel Drake and His Followers* (Cincinnati, 1909), p. 85; and Pusey, Wil-

liam Allen, "Giants of Medicine in Pioneer Kentucky," in *Medical Life*, XLV, No. 2 (New York, 1938), 35-64.

⁴⁴Ante, p. 249.

suburb where Brinton had lived for many years. He was a founding member and contributing patron of the Academy. The Brinton papers in these institutions offered no suggestions concerning the identity of Dr. Ward.⁴⁵ However, from other sources we definitely established the fact that Rafinesque had a botanical friend and collaborator by the name of Dr. Ward.

Among the Rafinesque papers in the library of the American Philosophical Society, we found an undated single sheet on which he listed his botanical collaborators in the states of Kentucky, Tennessee, Ohio, Illinois, and Indiana. Under the joint caption Illinois and Indiana he wrote: "Dr. Miller Dr. Ward Dr. _____. " The blank after the last "Dr." is Rafinesque's, and so far as we are concerned continues to be a blank. Dr. Miller was Christopher Muller (or Miller—more often written Muller by Rafinesque and others), schoolteacher, printer, and leader of the Harmonic band at the Rappite Community, at Harmony, Indiana, on the Wabash River. That Rafinesque was correct in calling him a doctor has been discovered very recently.⁴⁶ Original letters in the Indiana University Library clearly indicate that he was a physician. Rafinesque visited this famous community in 1818, during his first trip from Philadelphia to the West. This trip included his visit with the soon-to-be-famous John Audubon, at Hendersonville, Kentucky; and his original contact with Lexington and Transylvania University as the guest of John D. Clifford. Muller and Rafinesque botanized along the Wabash at Harmony during the latter's sojourn of a few days there.⁴⁷

⁴⁵ For our Philadelphia search we set up a board of advisers—Charles W. Brinton, grand nephew of Daniel G. Brinton; Dr. J. Alden Mason, of the museum, and Dr. Frank G. Speck, head of the Department of Anthropology, University of Pennsylvania; and R. Norris Williams, II, director of the Historical Society of Pennsylvania. It was through their guidance that we discovered the following facts: Daniel G. Brinton's daughter, Mrs. Emilia Garrison Brinton Thompson Grant, living in New York City, was in charge of the Brinton home, in Media, when her father died there in 1899. It had been agreed upon by the Brinton family and the University of Pennsylvania that his biography was to be written by Stewart Culin, one of Brinton's colleagues at the University of Pennsylvania, and a close friend of the entire family. The first Brinton came to Pennsylvania with William Penn, and the Media property had been a family possession since those early days. A large, but

unknown, amount of his public and private papers willed to the university library by Brinton, was retained to be turned over to Culin for his use before finally passing to the library. This program was not carried through, and the papers continued throughout the years to reside in the possession of Mrs. Grant. With the full support of J. Brinton Thompson, Mrs. Grant's son and grandson of Daniel G. Brinton, we asked to examine these papers. This was not granted. Finally a member of our board arranged to have the material opened at the Metropolitan Museum, in New York, under the supervision of museum officials acting as custodians for the Brinton family. This, likewise, was not granted.

⁴⁶ Andressohn, John C. (tr. and ed.), "The Arrival of the Rappites at New Harmony," in *Indiana Magazine of History*, XLII (1946), 405-7.

⁴⁷ Rafinesque, *A Life of Travels*, 1836 ed., p. 56; 1944 reprint, p. 318.

In the Rafinesque papers at the Academy of Natural Sciences at Philadelphia, presented to the Academy by Haldeman in 1849,⁴⁸ Rafinesque lists botanical specimens received from Dr. Ward. For example, listing the "Lophactis, N. G. by C. S. R.," he wrote, "I noticed in 1818 this plant on the Wabash, but out of blossom; in 1821 Dr. Ward brought me a perfect specimen from White R., Indiana."⁴⁹ He first wrote Mr. Ward, then penned a "D" over the "M." Rafinesque wrote over his signature in the fifth number of his *Atlantic Journal* for the Spring of 1833, an article intended as an advertisement for the sale of his own specimens. Entitled, "Account of the Botanical Collections of Professor C. S. Rafinesque," it gives a brief summary of his botanical activities, and listed several classifications of collaborators. Of those "who have added to my N. Amer. herbals," and under the division "Professors and Doctors," he listed Ward.⁵⁰

The next, and what we believe were the last, Rafinesque references to Dr. Ward were published in 1836. The great man mentioned his friend Ward as one of his botanical friends, not writers, but collectors, from whom "I have received much help by gifts or exchanges of specimens, new facts and observations."⁵¹ In the second place, he included Ward among those botanists "who have fallen victims to their zeal in arduous travels, or from diseases contracted by their labors."⁵² The final reference is in his *American Nations* (1836)—"the late Dr. Ward."⁵³

The knowledge that Rafinesque's Dr. Ward was a botanist broadened our avenues of inquiry. The linking together of the names Dr. Muller and Dr. Ward offered the intriguing possibility that we might discover the identity of Dr. Ward in the Rappite archives. When Father Rapp sold the Rappite Community at Harmony, on the Wabash, in 1825, to Robert Owen, he built a new settlement on the Ohio River eighteen miles west of Pittsburgh; and called the new community

⁴⁸*Ante*, p. 244.

⁴⁹This is the exact reading on the original manuscript. Later Rafinesque misquoted it, or failed to correct a typographical error: "I noticed in 1818 this plant on the Wabash, but out of blossom in 1821. Dr. Ward brought me a perfect specimen from White R. Indiana." *Atlantic Journal, and Friend of Knowledge*, edited by Rafinesque, I (Philadelphia, 1832-33. Photolithographed for the Arnold Arboretum, Cambridge, Mass., 1946), p. 152. In *ibid.*, p. 149, Rafinesque, listing certain specimens,

wrote, "They were chiefly discovered in 1818, or given me since by Dr. Muller and Dr. Ward."

⁵⁰*Ibid.*, p. 167.

⁵¹Rafinesque, Constantine S., *New Flora and Botany of North America* (4 parts. Philadelphia, printed for the author and publisher, 1836. Photolithographed for the Arnold Arboretum, Cambridge, Mass., 1946), part 2, p. 9.

⁵²*Ibid.*, pt. 2, p. 13.

⁵³*The American Nations*, p. 122.

Economy. Today the little old town stands within, and is part of, the city of Ambridge, a busy manufacturing center which is part of the greater Pittsburgh industrial area. The town looks just as it did in the days of Father Rapp—the church, the community house and all, overlooking the Ohio, whose bank all the way to the water is even now a vineyard. We were entertained by John S. Duss, the leader of this thrifty community of people. The archives, which did not appear to be too well organized, yielded nothing.⁵⁴

Search for a botanist also required the re-examination of some of our previous work. Dr. Ward is not mentioned in the botanical reports, records, lists, histories, etc., for the time around the 1820's, in the available sources from the states of Indiana, Kentucky, Ohio, and Illinois. The master list of thirty-five thousand American botanists compiled by the New York Botanical Gardens does not include him. That Rafinesque's botanical friend and collaborator, Dr. Ward, was not known to fame in his own day, is abundantly suggested.

Indirect evidence provided by Rafinesque himself suggested the possibility that his friend Dr. Ward was a Kentuckian living somewhere within a short distance of Lexington. In his letter written at Lexington, June 15, 1820, to Dr. Charles Wilkins Short, Hopkinsville, Kentucky, Rafinesque said that he had intended to go to White River, in Indiana, that summer; but the sudden death of his friend John Clifford (May 20) had changed his plans.⁵⁵ The events of the summer of 1820 as recorded in his *A Life of Travels*, and from letters written later than June 15 from Lexington,⁵⁶ indicate quite clearly that Rafinesque could not possibly have gone to White River in Indiana that summer. Moreover, in an original, unpublished Rafinesque manuscript in the library of the American Philosophical Society, Philadelphia, he reported his itinerary for 1820 thus: "Mt. Sterling, Mudlicks, Knobhills, Somerset, Harrodsburg, etc." Indeed it is highly improbable that he ever set foot on Indiana soil after the year 1818. Circumstantial evidence suggests that Dr. Ward went through with the tour which originally certainly included Rafinesque and possibly Clifford, for it was on White

⁵⁴ See Walam Olum notes, Indiana Historical Society Library.

⁵⁵ In The Filson Club, Louisville.

⁵⁶ See Call, Richard Ellsworth, *Ichthyologia Ohiensis . . .* by C. S. Rafinesque. A *Verbatim et Literatim Reprint of the*

Original with a Sketch of the Life, the Ichthyologic Works, and Ichthyologic Bibliography of Rafinesque (Cleveland, 1899), pp. 152-53, 173-75. A copy of the original edition of Rafinesque's *Ichthyologia Ohiensis* (Lexington, 1820) is in the Indiana Historical Society Library.

River, in Indiana, in 1820, that the original Walam Olum painted records were obtained as a reward for a medical cure.

During the summer of 1821, Rafinesque went with Dr. Short to Cincinnati and North Bend, Ohio, to visit members of the Harrison family to whom Dr. Short was related by marriage; and later visited the famous Big Bone Lick in eastern Kentucky. Concerning his travels in 1822, the year the Walam Olum "Mpt. and the wooden original was procured in Kentucky. (Dr. Ward.)," Rafinesque had much to say: "The paper money introduced in Kentucky in spite of the Constitution, and which soon fell to 50 percent, became another cause of displeasure, doubling all my expenses, postages, carriage of goods, &c., preventing me to travel out of Kentucky. . . . I could not travel far this year. I had to confine myself to the villages near Lexington; Paris, Versailles, Frankford [sic], Nicholasville, Boon's creek, the cliffs of the Kentucky R. etc. The longest of my excursions was to Danville and Knoblicks, visiting the venerable Gov. Shelby near there."⁵⁷

Either in Lexington, or in one of the villages near Lexington, Rafinesque procured the Walam Olum material. In one of the villages near Lexington, in Carlisle, lived Dr. John Russell Ward. Years later Rafinesque described in his *New Flora of North America* (1836) several botanical specimens received from Missouri, but unfortunately did not identify the donor. In the same volume and in his *American Nations* (published the same year) he made it clear that his old friend Dr. Ward had passed away. As we know, the good doctor lived in Carlisle until 1829, when he moved to Missouri where he died at Fulton, Callaway County, in the year 1834.

Until new knowledge throws additional light on these facts, only this much is certain: Rafinesque intended to make a botanical excursion to White River, Indiana, during the summer of 1820. He did not go. Brinton's knowledge or hunch that there was a Kentucky Dr. Ward has been documented. Circumstantial evidence suggests that a primary motive for the trip that landed a Dr. Ward, of Kentucky, on White River, Indiana, in 1820, may have been to visit one or more of the several Ward families then living in Indiana's Whitewater Valley and/or to carry out for Rafinesque the botanical excursion that he was unable to make.

⁵⁷Rafinesque, *A Life of Travels*, 1836 ed., pp. 65, 66; 1944 reprint, p. 322.

As to whether Dr. John Russell Ward, then living at Carlisle, Kentucky, was this Dr. Ward can, again, only be a guess.

THE PAINTED RECORDS

Rafinesque acquired "some" of the Walam Olum painted records and songs to accompany them, translated them, appended the historical "fragment," and in so far as he was concerned, that was that! Scholars have been trying to find the facts behind these facts ever since. Squier was intrigued by the Rafinesque manuscript, and sent copies to a number of educated Lenape Indians who considered the words of the songs to be authentic. He concluded that internal linguistic evidence and other considerations pointed to a genuine record containing more knowledge about some of the early Algonquians than was then known by students of American Indian prehistory. Squier's interest was something a trifle more than casual scholarly attention. Brinton's approach to the Walam Olum was from an entirely different angle. The Delaware (Lenape) had been good friends and honest neighbors to the Brinton family since the days of William Penn. His volume was "therefore, a debt of gratitude which I owe to this nation to gather its legends, its language, and its memories."⁵⁸ The Walam Olum was part of the material he found to work with, and he accepted it with not too good grace. As did Squier, he too sent copies of the manuscript to educated Delawares who accepted the material as genuine. He also believed that linguistic evidence within the body of the manuscript attested to its validity, and that it could be re-examined to advantage in the future when new methods of study justified it. He worked honestly with his material, but always with his tongue in his cheek, perhaps because he belonged to the same blue-stocking assembly that a generation before had turned thumbs down on poor Rafinesque.⁵⁹ Notwithstanding their many differences, the three men were genuine seekers after the truth, and their different approaches to this problem broadened and deepened accumulative knowledge resulting therefrom!

Both Rafinesque and Brinton casually accepted the authority of the Moravian missionaries when it came to the tough problem of the painted records. All we can say about the original records painted on sticks or bark is to point out that some of

⁵⁸ Brinton, *The Lenape and Their Legends*, p. 64.

⁵⁹ *Ibid.*, p. iv.

them *may* have been in the Maryland Historical Society's collections for a thirty one year period during the lifetime of Brantz Mayer. Brinton was rather cagey about the whole matter. After saying that the picture writing of the Lenape had been quite fully described by Heckewelder, Zeisberger, and Loskiel, his continuing discussion, of a general and vague nature, definitely indicated he was talking about the universally understood demotic sign language of the American Indians, and not about the esoteric mnemonic painted records of the Walam Olum.⁶⁰ Rafinesque categorically stated that "Heckewelder saw the Olumapi or painted sticks of the Linapis; but did not describe them; he merely translated some of their traditional tales which agree in the main, with these historical songs; yet the songs appear mere abridgments of more copious annals, or the bases of the traditions."⁶¹ And again, "If anyone is inclined to doubt this historical account; the concurrent testimonies of Loskiel and Heckewelder are corroborant proofs."⁶²

The Moravian mission in Indiana, situated on White River three miles east of Chief Anderson's Town, was closed in 1806. As we have previously pointed out, our present knowledge suggests that it was in one of the Lenape towns around the mission that the original Walam Olum painted records were obtained in 1820, fourteen years after the Mission was closed. The painted records may not have been on White River as early as 1806. On the other hand, a chief or a record keeper could have had them in his possession in the area that early; and some knowledge of them passed on to the missionaries, either as the Walam Olum, or by some other name or description, which in the light of our present knowledge would be self-revealing. From the vast storehouse of manuscripts in the Moravian Archives building, on the campus of the Moravian College and Theological Seminary, at Bethlehem, Pennsylvania, Dr. Gipson edited the history of the mission.⁶³ His material consisted chiefly of the diaries and letters of the missionaries, John Peter Kluge and Abraham Luckenbach. These devout men and true freely expressed their views and observations on all manner of subjects relating to the Indians; but nowhere in the volume is there a direct reference to the Walam Olum, nor even the slightest indirect inference which could possibly be construed to suggest it.

⁶⁰ *Ibid.*, pp. 58-59.

⁶¹ *The American Nations*, p. 123.

⁶² *Ibid.*, p. 125.

⁶³ *The Moravian Indian Mission on White River*.

This is not the first time this has happened. We have experienced the same difficulty with all other sources. Exactly how convinced both Brinton and Rafinesque were with their respective superficial rationalizations no one will ever know. Perhaps each man simply took too much for granted. It is very true that the Moravian missionaries and many other observers reported Lenape traditions which are in agreement with the traditional narrative embodied in the Walam Olum; but nowhere is there a reference to the Walam Olum, either direct or indirect, either suggestive or implied. We discussed the problem with Dr. Gipson at Lehigh University and Bishop Gapp at the Moravian College. The Archives consist of many hundreds of manuscript volumes containing hundreds of thousands of pages of papers, letters, diaries, etc., from the missionaries in the various communities scattered throughout eastern United States and Canada. Most of the Heckewelder, Zeisberger, and Loskiel material has been published, but in so vast an amount of material there's no telling what may be discovered. Through the co-operation of Dr. Gipson and the Bishop, and our good friend Dr. Paul A. W. Wallace, we hope the Moravian Archives will furnish a documentary reference to the Walam Olum.

After his retirement from the mission field, Heckewelder became the warm personal friend of some of the most brilliant men of his generation. Much of the great missionary's manuscript material was published by the American Philosophical Society. One of his friends and admirers, Dr. Benjamin Smith Barton, read a paper before the Philosophical Society, May 20, 1796, entitled, "Some Remains of Antiquity." Later under the same title the paper was published.⁶⁴ Barton listed hieroglyphics created by the American Indians, but did not mention the Lenape, to substantiate his statement that "There are several reasons for believing that the ancestors of some of the present races of Indians were acquainted with a kind of hieroglyphick-writing, very superior to the rude picture-writing now in use among them. . . . We discover many proofs of the ancient existence of hieroglyphicks in various parts of North America."

Ten months later, March 31, 1797, Dr. Barton read a second paper on the same subject, "Specimen of Indian Picture Writing." At the time these papers were read, Dr. Barton was corresponding with John Heckewelder; and this con-

⁶⁴*Transactions of the American Philosophical Society, O. S., IV (1799), 181-215.*

nection is of especial significance. Is it possible that after Barton's first paper in which no reference was made to Lenape "Hieroglyphicks," Heckewelder informed him concerning the Walam Olum which became the subject of the second paper? Unfortunately, this second paper was not published, nor has a copy of it been found.

Recent visits to Bethlehem, Philadelphia, and Baltimore, where in each contact we have been able to point to a direct and positive problem and where we have received the warmest offers of co-operation, represent the end of our resources for the present. We have presented rather strong circumstantial evidence, and suggested a motive for a Dr. Ward being on White River in Indiana in 1820. We have failed to find any facts to elaborate Rafinesque's statement that he acquired the Walam Olum material in Kentucky in 1822, except to show that his travels for that year were within a restricted area wherein dwelt a Dr. Ward. In one of John Masefield's sonnets there is a line which we have long since forgotten how to quote, but the thought is this—long after all hope is lost, some unknown source comes through to supply the need.

BIBLIOGRAPHY

I. RAFINESQUE

Rafinesque was a prolific writer. A bibliography of his works includes over nine hundred titles ranging many fields of endeavor. This section is not a bibliography, but rather the listing of four sources which give an illuminating picture of Rafinesque, his life and his writings. Call and Fitzpatrick have written his standard biographies. Included in both of these excellent volumes are bibliographies of Rafinesque's writings and of the critical writings of others concerning him and his published works.

The charming little volume privately printed by Harry Bischoff Weiss, intimately reveals the artistic and creative temperament of the man who dedicated his life to science.

Rafinesque's 1836 printing of the *Life of Travels* is now a very rare volume highly valued as a collector's item. Dr. and Mrs. Verdoorn and their collaborators, Dr. Elmer D. Merrill, of Harvard University, and Dr. Francis W. Pennell, at the Academy of Natural Sciences of Philadelphia, have performed a distinct service in the verbatim reprinting of this as a contribution from the *Chronica Botanica* Co., Waltham, Massachusetts. Here the reader meets the real Rafinesque.

1836

Rafinesque, Constantine S., *A Life of Travels and Researches in North America and South Europe, or Outlines of the Life, Travels and Researches of C. S. Rafinesque . . . Containing his Travels in North America and the South of Europe; the Atlantic Ocean, Mediterranean, Sicily, Azores, &c., from 1802 to 1835— with Sketches of his Scientific and Historical Researches, &c . . .* (Philadelphia, Printed for the Author, by F. Turner), reprinted as *A Life of Travels, by C. S. Rafinesque, Being a Verbatim and Literatim Reprint of the Original and Only Edition* (Philadelphia, 1836). Foreword by Elmer D. Merrill . . . critical index by Francis W. Pennell . . . (*Chronica Botanica*, VIII, no. 2, Waltham, Mass., 1944).

1895

Call, Richard Ellsworth, *The Life and Writings of Rafinesque. Prepared for the Filson Club and Read at Its Meeting, Monday, April 2, 1894 . . .* (Filson Club Publications, no. 10, Louisville, Ky.).

1911

Fitzpatrick, T. J., *Rafinesque; A Sketch of His Life with Bibliography . . .* (Des Moines, The Historical Department of Iowa).

1936

Weiss, Harry Bischoff, *Rafinesque's Kentucky Friends* (Privately printed, Highland Park, N. J.).

II. PUBLICATIONS OF THE WALAM OLUM

This section comprises a list of all known publications, either whole or in part, of the Walam Olum.

1836

Rafinesque, Constantine S., *The American Nations; or, Outlines of Their General History, Ancient and Modern: including the Whole History of the Earth and Mankind in the Western Hemisphere; the Philosophy of American History; the Annals, Traditions, Civilization, Languages, &c., of All the American Nations, Tribes, Empires, and States . . .* (Philadelphia, C. S. Rafinesque).

Chapter 5 (pp. 121-61): "Original Annals and Historical Traditions of the Linapis, from the creation to the flood, passages and settlements in America, as far as the Atlantic Ocean &c., till 1820 &c." On pp. 125-44 is Rafinesque's first and only printing of his translation of the Walam Olum. This appeared without the glyphs and with only an occasional Lenape word, usually a proper name. The printing of the glyphs must have presented an insurmountable financial problem to Rafinesque, who contracted to pay for his publication. This was the only volume printed of a projected series of six volumes on the American Nations later to be expanded to twelve. The Rafinesque manuscripts, containing the glyphs and the individual songs attached to each, are in the University Museum, University of Pennsylvania, Philadelphia.

1848, 1849, 1877, 1880

Squier, Ephraim G., "Historical and Mythological Traditions of the Algonquins. With a Translation of the Walum-Olum, or Bark Record of the Lenni Lenape," a paper read before the New York Historical Society at its regular meeting June 6, 1848, printed in *The American Review, a Whig Journal devoted to Politics and Literature*, No. xiv, February, 1849, pp. 273-93, and in *The Indian Miscellany . . .*, edited by W. W. Beach (Albany, N. Y., 1877), [9]-42, and also in Drake, Samuel Gardiner, *The Aboriginal Races of North America . . .* (15th ed., rev., with valuable additions, by Prof. H. L. Williams . . ., New York, Hurst & Company, c. 1880), pp. 718-36. [Squier's manuscript copy of Rafinesque's Eng-

lish translation of all the verses of the five Walam Olum songs is in the E. G. Squier Papers, Archaeology Box 1, MS Division, Library of Congress.]

1868

Brasseur de Bourbourg, Charles Étienne,¹ *Quatre Lettres sur le Mexique, Exposition Absolue du Système Hiéroglyphique Mexicain . . .* (Paris, Maisonneuve et cie . . .). Half title: *Collection de Documents dans les Langues Indigènes pour servir à l'étude de l'histoire et de la philologie de l'Amérique ancienne.*

Pp. 435-48: "Chants Anciens Des Indians Des États-Unis. (Extrait de l'ouvrage intitulé: *The American Nations, or outlines of their general history, ancient and modern, etc.,* by C. S. Rafinesque, Philadelphia, 1836, first volume, pag. 122 et suiv.)" "N.b. The glyphs or symbols, here alluded to, are altogether wanting in the original book of Mr. Rafinesque, from which this was borrowed."

The text of *Quatre Lettres sur Le Mexique* is in French, save only the Walam Olum chapter which is in English, "borrowed" exactly after Rafinesque as acknowledged.

¹Charles Étienne Brasseur de Bourbourg (1814-74), the great French historian, archaeologist, philologist, ethnographer, was a contemporary and personal friend of Ephraim G. Squier and Daniel G. Brinton. He was educated for the church, but at an early age while studying in Rome he became interested in Mexican prehistory. A journey to America in the year 1845, when he was particularly charmed with the city of Boston, and where he read for the first time Prescott's *History of the Conquest of Mexico*, persuaded him that his scientific calling was in the American field. The remainder of his life was devoted to numerous field trips in Mexico and Central America, and to the study of manuscript materials in the libraries at Rome and Madrid. He crossed the Atlantic many times; and, in the year 1848, followed by the way of the Ohio and the Mississippi the grand route of the old French voyageurs to New Orleans. See Adams, Herbert B., "The Abbé Brasseur de Bourbourg," in *Proceedings of the American Antiquarian Society*, N. S., VII (1892), 274-90.

Daniel G. Brinton, in his *Myths of the New World* (3d ed. Philadelphia, 1896), p. 57, said of him: "All interested in American antiquities cannot too much thank this indefatigable explorer for the priceless materials he unearthed in the neglected libraries of Spain and Central America, and laid before the public."

1885

Brinton, Daniel G., *The Lenâpê and Their Legends; With the Complete Text and Symbols of the Walam Olum, a New Translation, and an Inquiry into Its Authenticity* (D. G. Brinton, Philadelphia).

The great study of Rafinesque's original work. Here for the first time were printed, from the Rafinesque manuscripts, all of the pictographs and the individual songs attached to each. Brinton concluded that the Walam Olum was a genuine Indian document deserving future study.

1938

Norwood, Joseph White, *The Tammany Legend (Tamanend) . . . Historic Story of the Origin of the "St. Tammany" Tradition in American Government and What Democracy Owe to Aboriginal American Ideals. Based on Original Native Sources Covering, Historically, 600 A.D. to the Present* (Boston, Meador Publishing Company).

pp. 148-97: "The Walam Olum or Red Score," without the pictographs, and based on Squier's paraphrasing of the songs.

III. MORAVIAN SOURCES

Works of Heckewelder, Loskiel, and Zeisberger are essential to study of the Walam Olum. Rafinesque said: "If any one is inclined to doubt this historical account [the Walam Olum], the concurrent testimonies of Loskiel and Heckewelder are corroborant proofs." (*The American Nations*, p. 125). Said Brinton: "The picture writing of the Delawares has been quite fully described by Zeisberger, Loskiel and Heckewelder." (*The Lenâpê and Their Legends*, p. 56.) However, this is an exaggeration of the facts. In the published materials of these great Moravian missionaries there is limited discussion of the well-known demotic sign language of the American Indians, common to a great many tribes; but no mention of the esoteric mnemonic ideographs which are the Walam Olum. These authorities do not mention the Walam Olum. Of the three, only Heckewelder tells the Walam Olum migration story, but without crediting his source except to say it was Lenape tradition. Search for documentation of the Walam Olum at this source is being continued among the unpublished manuscript of the above three, and of the many other Moravian missionaries to the Indians, in the vast Moravian Archives, at Bethlehem, Pennsylvania.

1794

Loskiel, George Henry, *History of the Mission of the United Brethren among the Indians of North America . . .*, translated from the German by Christian Ignatius La Trobe (London).

Loskiel completed his manuscript in 1788 and it was first published in German, Barbry, 1789, long before he came to America in 1802. Zeisberger's MSS were his chief source.

1819

Heckewelder, John G. E., "An Account of the History, Manners, and Customs of the Indian Nations, Who Once Inhabited Pennsylvania and

the Neighboring States," in *Transactions of the Historical and Literary Committee of the American Philosophical Society*, I (Philadelphia), 1-[348].

_____, "A Correspondence between the Rev. John Heckewelder of Bethlehem, and Peter S. Duponceau, Esq. . . . Respecting the Languages of the American Indians," in *ibid.*, pp. [351]-448.

_____, "Words, Phrases, and Short Dialogues, in the Language of the Lenni Lenape, or Delaware Indians," in *ibid.*, pp. [451]-464.

1820

Heckewelder, John G. E., *A Narrative of the Mission of the United Brethren among the Delaware and Mohegan Indians . . .* (Philadelphia, McCarty & Davis).

An edition of this edited by William Elsey Connelley was published in Cleveland, Ohio, 1907.

1834

Heckewelder, John G. E., "Names which the Lenni Lenape or Delaware Indians, who once inhabited this country, had given to Rivers, Streams, Places, &c., &c., within the now States of Pennsylvania, New Jersey, Maryland and Virginia: and also Names of Chieftains and distinguished Men of that Nation; with the Significations of those Names, and Biographical Sketches of some of those Men . . .," in *Transactions of the American Philosophical*, N.S. IV (Philadelphia), 351-96.

1870

De Schweinitz, Edmund, *The Life and Times of David Zeisberger* (Philadelphia).

1885

Zeisberger, David, *Diary . . .*, edited by Eugene F. Bliss (2 volumes. Cincinnati).

1910

Zeisberger, David, "History of the North American Indians," edited by Archer B. Hulbert and William N. Schwarze in *Ohio State Archaeological and Historical Society Publications*, XIX (Columbus), 1-189.

See particularly pp. 114, 145-46.

SPECULATIONS ON THE CHRONOLOGY OF THE WALAM OLUM AND MIGRATION OF THE LENAPE

BY ELI LILLY

THE most intriguing question in connection with the Walam Olum is how much of it is reasonably accurate history and how much mere romance. Both are undoubtedly present. That the Walam Olum was a genuine native production was accepted by Brinton after careful study in 1885, and time has strengthened his position. Skepticism of the authenticity of the legend because of the part the controversial figure of Rafinesque played in its discovery and preservation is diminishing as estimates of his scientific work have risen. Natural scientists today have a greater respect for his contributions in their field than did his contemporaries. And the results of examination of the Walam Olum by specialists in the fields of linguistics, archaeology, and ethnology, given elsewhere in this volume, have been favorable in that they point to its genuineness.

In the light of what is known the record certainly is a worthy subject for students of American aboriginal culture. It cannot be written off as pure imagination. Concentrated efforts have been made and should be continued by all the pertinent disciplines. While results thus far have not been conclusive, and not always encouraging, such studies should not be discontinued until the truths and falsities of this interesting tradition are finally determined.

The failure of human memory for historic facts is notorious. There are many examples of total blackouts of important events even in so short a period as two hundred years, especially among the American Indians. The caustic cynic might

even refer to the inaccuracy of some of our so-called written history—twisted out of all recognition by national or personal interests. Who was it that said history could be summed up in one word: "Perhaps"?

To offset the shortness of memory were those practices occurring in some primitive societies of certain families or groups being chosen to keep tribal records carefully and accurately and pass them down from one generation to another. The *Walam Olum* may have been kept in this way.

In testing the record one point to be considered is that of the pictographs. Their authenticity has been supported by a wide examination of the literature on the subject,¹ and it is known that such pictographs were used by Algonquian-speaking Indians and also by the Iroquois, Sioux, and other groups. So far no way of determining the antiquity of the present pictographs has been found, nor has it been determined whether or not they were a development from more archaic forms.

A point in considering whether the *Walam Olum* is a truly American aboriginal document is whether or not it shows any indisputable evidences of White contact. Statements in the legend paralleling White beliefs have been pointed out but not one can be proven to be of purely European origin, for they are all widely accepted beliefs among the aboriginal inhabitants.

To test the genuineness of the story that is related an attempt is here made to determine the time of the episodes given and to reconstruct the migration of the Lenape as outlined. The results may then be studied in the light of geographical and archaeological findings. Similar efforts have been made by others before but in the light of Dr. Voegelin's new and superior translation and a more perfect understanding of the glyphs of the *Walam Olum* it seems advisable to study the problems again. It will be seen that the results of these speculations will differ from those reached by others in that they shorten the total time covered by the *Walam Olum* and indicate that the Lenape, at least those concerned in the *Walam Olum*, came from the west across the Mississippi instead of crossing the St. Lawrence from the north as Brinton and others originally suggested. It is thought that their theory was prejudiced by the historical position of the Iroquois in New York state.

¹See Pictograph Bibliography, *ante*, p. 237.

There is reason to believe that four dates mentioned in the *Walam Olum* may be closely approximated:

First: The date at which the Delaware reached the Delaware River and East Coast. The following statement was made by the Rev. Charles Beatty who visited the Indians of Western Pennsylvania in 1766:² "That of old time their people were divided by a river, nine parts of ten passing over the river, and one part tarrying behind; that they know not, for certainty, how they came first to this continent; but account thus for their first coming into these parts, near where they are now settled—that a king of their nation, when they formerly lived far to the west, left his kingdom to his two sons—that the one son making war upon the other, the latter thereupon determined to depart, and seek some new habitation—that, accordingly he set out, accompanied by a number of his people; and that, after wandering to and fro, for the space of forty years, they at length came to *Delaware* river, where they settled three hundred and seventy years ago. The way, he says, they keep an account of this, is, by putting on a black bead of wampum every year since, on a belt they have for that purpose."

We may believe with pretty good reason that reaching the Delaware River is recorded in lines 27 and 28 of Book V:

V, 27. "When Red Arrow was chief, they were so far downstream that tides could be felt."

V, 28. "When Red-Paint Soul was chief, they were at the mighty water."

By Beatty's statement, that date would be about 1396—370 years before 1766.

Second: Lines 39 and 40 of the same book record that Whites came floating in from the east. Cabot is said to have coasted along these shores in 1498, so we may fix the date of the coming of the Whites at about that time.

Third: Book V ends, When the Whites "were floating in from the north and from the south," i. e., about 1625.

Fourth: The historical "Fragment" begins where Book V ends, and several of the dates of the chiefs mentioned may be identified by history. The "Fragment" ends about 1820.

²*The Journal of a Two Months Tour; with a View to Promoting Religion among the Frontier Inhabitants of Pennsylvania . . . ,* by Charles Beatty (London, 1768), p. 27.

The period recorded from the year 1625 to 1820 by the "Fragment," 195 years, had, as nearly as can be determined, eleven head chiefs, thus averaging 17.7 years per reign. From Cabot, 1498, until the coming of the Whites, say 1625, was 127 years, with thirteen chiefs or 9.8 years per chief. From the arrival of the Lenape at the Delaware River, 1396, until the coming of Cabot, 1498, was 102 years with seven chiefs during that period or an average length of chieftainship of 14.5 years. For the total 424 years, there were 31 chiefs mentioned, an average of 13.67 years per chief. The fact that the average of these three periods is not too different from each of the three, tends to substantiate the correctness of both the datings and the length of the period of a chief's rule.

In connection with figuring the average length of rule per chief, it is interesting to compare known historical parallels among more or less primitive peoples. For example, among the Sumerians from 2650 B.C. to 1910 B.C. the average reign per king was 14.5 years.³ Among the Aztecs the last nine rulers including Moctezuma ruled on an average of 15 years. The two Codexes Telleriano-Remensis and Mendoza differ slightly on these figures, but 15 is the average between the two.⁴ In the Hawaiian Islands, King Kamehameha and his seven successors ruled for 120 years for an average of 15 years.⁵

In calculating the length of the over-all reign of these chiefs mentioned in the Walam Olum by this average of 13.67 years per chief, there is the question as to whether or not the chiefs were always successive or were in some cases contemporary—some war and some village chiefs. There are a few instances where this is possible, but almost invariably the wording clearly indicates that the chiefs are listed in chronological order, even in the several cases where two chiefs are represented in the same pictograph. Nor does a study of the names clearly indicate the identity of war chiefs and village chiefs.

It also seems that even if an occasional contemporary chief's name did slip in, the number of these occurring in the 424 datable years might approximate the same proportion as in the years previous to them.

³ Woolley, Charles Leonard, *The Sumerians* (Oxford, Clarendon Press [1928]), pp. 21-26.

American Archaeology and Ethnology, XVII, no. 1, Berkeley, 1920), pt. 2, pp. 50-56, pt. 4, pp. 45-50.

⁴ Radin, Paul, *The Sources and Authenticity of History of Ancient Mexicans* (University of California Publications in

Kuykendall, Ralph Simpson, A History of Hawaii . . . (New York, 1926), p. 345.

Of course, it may be that the farther the list runs back into the past, the more omissions of chiefs occur, but all in all, the 13.67 year reign per listed chief appears to be as close an estimate as can be made to form a basis for the chronology of the Walam Olum.

Adopting this average of 13.67 years per chief, and extending the dates back at this rate, we have the Lenape crossing Bering Strait about A.D. 366, at Snow Mountain about 808, crossing the Mississippi (?) near 1000, spending the years between 1136 and 1245 on "the middle reaches of White River," and crossing the Alleghenies about 1327.

As to the migration route followed by the Lenape it seems quite certain that Turtle Island in Book III, "where the land slopes north" (verse 3), must have been northeastern Asia. Verses 16, 17, 18, in Book III, pretty closely describe the passage of the Lenape across Bering Strait in both text and pictographs. Further, III, 18, tells of their ascent of what must have been the Yukon River, of which Hrdlička says, "The great and easily navigable river, extending for many hundreds of miles from west to east, could not but have played a material part in the peopling of Alaska, and quite probably in that of the continent. . . ."⁶

Since many of our modern roads and railroads followed the trails and passes first used by the Indians, it is reasonable to suppose that in the southern migration of the Lenape from the head of navigation on the Yukon to the warmer portions of "Snake Island," their pathway might have approximated the route of the modern and celebrated Alaskan Highway, and, as a matter of fact, some of the verses fit into this picture. If this theory is correct, they followed or helped develop the Great Northern Trail, swinging down through the provinces of Yukon, British Columbia, and Alberta, through the general region of the sites of Edmonton and Calgary, continuing diagonally across Montana bearing to the southeast. The old trail bore south again after crossing the extreme northeast corner of Wyoming, passing along the western edge of South Dakota and Nebraska to join the Santa Fe Trail.

As we proceed, we hope to develop some sound reasons for believing that the

⁶Hrdlička, Aleš, "Anthropological Survey in Alaska," in U. S. Bureau of American Ethnology, *Annual Report*, 1928-29 (Washington, D. C., 1930), p. 81.

Lenape followed a more western path in their migrations than has hitherto been thought. Book IV, verse 1, reads: "Long ago people like the Delaware were in a forest by a lake." The map reveals several large lakes on the border between Yukon and British Columbia and elsewhere in the neighborhood of the Alaskan Highway. Book IV, verse 8, ". . . White Owl was chief at the forest land." Great forests cover British Columbia and southwestern Alberta. Book IV, verse 12, narrates a split in the company some going south with Chief Bird. If the *Walam Olum* tradition in these earlier years embraces a group of Algonquian people rather than the Lenape alone, this very well may be the point where the Northern Algonquians including the Chippewa, Algonkin, Montagnais, and Abnaki groups of tribes separated from the main body to pass north of the Great Lakes, "far from the buffalo country" (IV, 14).

There are some lines that are difficult to fit into any theory regarding the route followed, such as Book IV, verse 13: "In the Snake Land, the southern land, the great land which extends along the shore." Is the West Coast of North America being referred to, or is the shore of the Great Lakes meant? Since the pictographs show the water glyph to the west, we take it to indicate the West Coast.

Book IV, verse 16, mentions "the Shamans, the Snakes, the Blacks, and the Stonies." Some writers have previously identified these tribes with several supposed to be in the Lake Superior region. Especially have the "Stonies" been called the Assiniboin, but in reaching this conclusion, consideration has not been given to the fact that this meeting probably took place about A.D. 462 and at that period who knows where the Assiniboin were?

Book IV, verse 24, ". . . One Who Is Cold, went south to the berry country" (A.D. 600). The word here used is clearly "berry," but it may have been used in a generic sense meaning an item of food, or, indeed, corn, as interpreted by earlier translators. If it really means berries, the main "berry belt" extends across lower Canada and the extreme northern United States between latitudes 45° and 55°. On the other hand, both Paul Weatherwax,⁷ of Indiana University, and George Will,⁸ of Bismarck, North Dakota, say that maize was probably growing in the same latitudes as early as this period of A.D. 750.

⁷Paul Weatherwax to Eli Lilly, December 16, 1949.

⁸George Will to Glenn A. Black, December 30, 1941.

Book IV, verse 28, "It was not raining and there were no berries, so they went over to the east where it was wet." The Great Northern Trail leads to the east here, too. In our chronology, based upon 13.67 years per chief mentioned, this would have been about A.D. 657. Unfortunately there are no tree-ring records for Montana and the land to the north to check against this drought of approximately 657, but the tree-ring record in the American Museum of Natural History in New York in the form of Douglass photographs shows extremely little rainfall among the big trees of California from 650 to 770, the lowest years being 650, 720, and 770. The first of these dates is not too far away from our tentative chronology to give food for thought. Tree-ring records from the Southwest show drought periods from 738 to 744, from 791 to 797, and from 823 to 825. Both of these areas are too far away from Montana to draw accurate conclusions, but it is thought that the long-range rainfall of that region would more closely resemble that of California than the Southwest.

Book IV, verse 29, "By the good hills and along the plains, buffalo were beginning to graze." Mention of plains and buffalo would point to central or southeastern Alberta, southern Saskatchewan, and northern Montana.

At this point there is frequent mention of an enemy tribe, "the Snakes." It may always or only occasionally simply mean enemy. That the pictographs always show a special head ornament for Snakes in the same manner as for other tribes makes it likely that some special tribe or stock is meant. In the historic period both the Shoshone and Siouan peoples were known as Snakes, and it is possible that the ancestors of one of these groups were encountered at that time in this region.

Book IV, verse 33, "Those at Snow Mountain were happy and made One Who Is Beloved chief." There is a Snow Mountain in Park County in southern Montana just north of the Yellowstone National Park. The Big Horn Mountains in north-central Wyoming are called the White Mountains by the Indians.⁹ The Medicine Bow range in southeastern Wyoming has been known as the Snowy Range and the highest peak of these has been called Snow Peak, and many maps show the Big

⁹ Clark, William Philo, *The Indian Sign Language . . .* (Philadelphia, 1885), p. 424.

Snow Mountain in Fergus County in central Montana.¹⁰ It is very probable that these names have come down to us from the Indians as so many of the place names of our country have. It is quite possible that this is the region referred to in the Walam Olum. Our time schedule would place the Lenape here in about A.D. 808.

One strong reason for preferring the more western route for the Lenape migration is a statement of Heckewelder which reads: "The Lenni Lenape . . . resided many hundred years ago, in a very distant country in the western part of the American continent. For some reason . . . they determined on migrating to the eastward, and accordingly set out together in a body. After a very long journey, and many night's encampments by the way, they at length arrived at the Namæsi Sipu (the Mississippi or *River of Fish*) where they fell in with the Mengwe (the Iroquois, or Five Nations) . . ."¹¹

Book IV, verse 34, "Once again they were in a settlement by the Yellow River, where berries were abundant among the rocks and stones." The word "again" is significant, for the Yellow River is the Missouri or the Yellowstone, and to get from the north into central or eastern Wyoming, the tribe would have had to cross these rivers once, and now on their long trek to the eastward they reach the Yellow River "again." From southeastern Wyoming to the Missouri their route may have approximated the eastern portion of the Oregon Trail. Surely it is more than a coincidence that our theoretical route of migration passes through regions so aptly described in the text and in the same sequence.

Book IV, verse 49, "They separated at —[?] River; and the ones who were lazy returned to Snow Mountain." The deciphering and interpretation of this line have been discussed.¹² The spelling from which the translation of "Fish River" is made is

¹⁰Encyclopaedia Britannica (14th ed.), XXIV, 94 E 2, 146 F 4; Spofford's Cabinet Encyclopedia Atlas of the World (Philadelphia, 1900), p. 61; *The Times Survey Atlas of the World*, by John G. Bartholomew (London, 1922), plate 92; and *The Citizen's Atlas of the World . . .*, by John G. Bartholomew (5th ed., Edinburgh, 1935). "Snow Mountains" are shown in the area of central Montana on the map accompanying Lt. G. K. Warren's report of "Military Reconnaissances in the Dacota Country" 1855 (U. S. Senate, *Executive Documents*, 34 Congress, 1 session, No. 76). The map is reproduced in U. S. Bureau of American Ethnology, *Bulletin 147* (Washington, D. C., 1952). A relief map of the United States published (1952)

by Aero Service Corp., Philadelphia, shows "Big Snow Mountain" in the area of Fergus County, Montana.

¹¹Heckewelder, John G. E., "An Account of the History, Manners, and Customs of the Indian Nations, Who Once Inhabited Pennsylvania and the Neighbouring States," in *Transactions of the Historical and Literary Committee of the American Philosophical Society*, I (Philadelphia, 1819), p. 29; "A New and Revised Edition with an Introduction and Notes by the Rev. William C. Reichel, of Bethlehem, Pa.," was published as volume XII of the *Memoirs of the Historical Society of Pennsylvania* (Philadelphia, 1876).

¹²Ante, p. 131.

almost the exact spelling appearing in Heckewelder quoted above, and so it seems advisable to give weight to the tradition given us by him and to conclude that the river was the Mississippi. Since John Gottlieb Ernestus Heckewelder died at Bethlehem, Pennsylvania, on January 31, 1823, it is quite certain that he had not seen the Rafinesque material concerning the Walam Olum and must have gotten his information from aboriginal Delaware sources.

Another indication that the Lenape had once lived in the region just west of the Mississippi is found in line 18 of the "Fragment" of the Walam Olum. Here, after speaking of the plan for returning to Missouri, beyond the Mississippi, it reads: "Near to our ancient seat."

The pictograph for V, 49, also shows a wider stream than in other river symbols, and that it flowed north and south.

The next problem is: Who were the Talligewi (V, 50)? Some light may be thrown upon this question by recalling the territory claimed by this tribe. Heckewelder¹³ and Loskiel¹⁴ state that the whole Ohio Valley at least as far down as the mouth of the Wabash had been and still was in their time called Alligewinengh by the Lenape. Their statements have been accepted by Brinton¹⁵ and Mooney.¹⁶

Schoolcraft,¹⁷ Thomas,¹⁸ Mooney,¹⁹ and Brinton²⁰ came to the conclusion that Lenape and Wyandotte traditions could be believed, namely that the Talligewi

¹³See Jones, Maurice C., "Memorandum of the Names and Significations which the 'Lenni Lenape' Otherwise Called 'the Delawares,' Had Given to Rivers, Streams, Places, etc., within Pennsylvania," in Historical Society of Pennsylvania, *Proceedings*, March 22-May 19, 1847, in *Bulletin*, I, no. 11 (Philadelphia, June 1847), p. 129; Heckewelder, *Account of the History, Manners, and Customs of the Indian Nations*, pp. 29-30, and "Names which the Lenni Lenape or Delaware Indians, who once inhabited this country, had given to Rivers, Streams, Places, &c., &c. . . .," in *Transactions of the American Philosophical Society*, n.s. IV (Philadelphia, 1834), p. 367. See also Reichel, William C., *Names which the Lenni Lenape or Delaware Indians Gave to Rivers, Streams and Localities, within the States of Pennsylvania, New Jersey, Maryland and Virginia*, prepared . . . from a MS. by John Heckewelder (Nazareth, Pa., 1872, in *Transactions of the Moravian Historical Society*, 1858-76), pp. 237-38.

¹⁴*History of the Mission of the United Brethren among the Indians in North America*, translated from the German by Christian Ignatius La Trobe (London, 1794), pp. 6, 127.

¹⁵*The Lenape and Their Legends*, pp. 16-18.

¹⁶"Myths of the Cherokees," in U. S. Bureau of American Ethnology, *Annual Report*, 1897-98, pt. 1 (Washington, D. C., 1900), p. 18.

¹⁷*Notes on the Iroquois; or, Contributions to American History, Antiquities, and General Ethnology* (Albany, 1847), p. 162. Schoolcraft is cited in Charles C. Royce, "The Cherokee Nation," in U. S. Bureau of American Ethnology, *Annual Report*, 1883-84 (Washington, D. C., 1887), p. 137.

¹⁸"Burial Mounds of the Northern Sections of the United States," in U. S. Bureau of American Ethnology, *Annual Report*, 1883-84 (Washington, D. C., 1887), p. 60; *Work in Mound Exploration of the Bureau of American Ethnology* (U. S. Bureau of American Ethnology, *Bulletin* 4, Washington D. C., 1887), p. 13; *Problem of the Ohio Mounds* (U. S. Bureau of American Ethnology, *Bulletin* 8, Washington, D. C. 1889), pp. 7, 8.

¹⁹"Myths of the Cherokee," in U. S. Bureau of American Ethnology, *Annual Report*, 1897-98, pt. 1, p. 19.

²⁰*The Lenape and Their Legends*, p. 17.

were the ancestors of the modern Cherokee and that many of the typical earth-works of Ohio and West Virginia owe their origin to these latter people. The lazy ones returning to Snow Mountain might have been the Blackfoot, Cheyenne, and Arapaho thus explaining their position in historic times.

Another method of arriving at the proper conclusions of this question would be to learn what cultures were dominant in the Ohio Valley at the time of the Lenape invasion. If our relative chronology is at all correct, the Lenape came into the Ohio Valley around A.D. 1000,²¹ during the Hopewellian period and might well have participated in developing the Hopewellian culture.

While several tribes may have taken part in the "Hopewell Movement," some signs point to the Cherokee as being one of the participants. Haywood²² states that the Cherokees had a tradition relating that "they came from the upper part of the Ohio where they erected the mounds on Grave Creek," etc. Brinton,²³ Cyrus Thomas,²⁴ and Charles E. Royce²⁵ repeat this legend and Brinton says further that: "Professor Thomas has shown beyond reasonable doubt that the Cherokees were mound builders within the historic period."²⁶

Adair,²⁷ Brinton,²⁸ and Loskiel²⁹ report Cherokee traditions that they once lived on the Upper Ohio and its tributaries. The great objection to this Talligewi-Cherokee theory is that as yet no archaeological tie-up has been established. If Adena or Hopewellian is early Cherokee, then that tribe must have changed its culture to a large extent in a short time, for the historic Cherokee archaeological traces, including the Peachtree Mound reported on by Setzler, are entirely different from Adena and Hopewell.³⁰ If the Cherokee were the Talligewi mound builders and were driven out by the Lenape, they might have been wholly or partly responsible for the Adena works. All this speculation leaves out of account the

²¹Recent dates arrived at through the medium of radioactive carbon removed many years ago from mounds of Hopewellian affinity show a much earlier dating, but unfortunately dates so arrived at are open to serious question.

²²*The Natural and Aboriginal History of Tennessee, up to the First Settlements Therein by the White People in the Year 1768* (Nashville, 1823), p. 226.

²³*The Lenâpë and Their Legends*, pp. 16, 17.

²⁴"Prehistoric Migrations in the Atlantic Slope of North America," in *The American Antiquarian and Oriental*

Journal, XVIII (January–November, 1896), p. 348.

²⁵"The Cherokee Nation," in U. S. Bureau of American Ethnology, *Annual Report*, 1883–84, p. 137.

²⁶*The Lenâpë and Their Legends*, p. 17n.

²⁷*The History of the American Indians . . .* (London 1775), p. 227.

²⁸*The Lenâpë and Their Legends*, pp. 16, 17.

²⁹*History of the Mission of the United Brethren*, p. 124.

³⁰*Peachtree Mound and Village Site, Cherokee County North Carolina* (U. S. Bureau of American Ethnology, *Bulletin* 131. Washington, D. C. 1941).

strange situation of the Siouan tribes in Virginia and North and South Carolina. Could they have been the Talligewi? At this time there is no support for this theory except their unusual geographical position on the eastern coast.

On page 60 of his *A Life of Travels*, Rafinesque wrote, "At Marietta I went to survey the ruins of the ancient town and monuments of the Talegawis," thus with or without sound reason identifying this tribe with Adena people or the Hopewellians.

Book V, verse 2, reads "Road Man was chief there along the middle reaches of White River." There is a note reading "Wabash" in Rafinesque's own handwriting on this line in his notebook, so the Wabash is one candidate for the honor of being the river in question. The glyph would indicate that the road or river extended north and south.

On De l'Isle's map of Mexico and Florida (Paris, 1703) the Wabash River is called "Ouabache R" and "R d'Ouabache autrem't nomine Ohio ou Belle Riviere." The Ohio River is called "R. d'Acansea." The Wabash appears longer than the Ohio. Earlier, on a map of *Partie Occidentale du Canada ou de la Nouvelle France* (Paris, 186-[?]), by Pere Coronelli, the Ohio is called La Riviere Ouabache. Only to confuse the picture, on a map of *Partie Meridionale de la Riviere Missisipi et ses environs, dans l'Amerique septentrionale* (Paris, 1718) the Ohio River is labeled "Riviere d'oubache, ou Akansea sipi" and farther on, "Riviere d'Ohio autrement appellée Acansea Sipi." The Wabash is called "Ouabache R ou de St. Jerome . . . R d'Ouabache autrement nominée Oyo ou belle Riviere." This obvious confusion of names puts forward the Ohio River as another possibility for the stream referred to in Book V, verse 2.

White River in Indiana is the third contender and the Little Miami in Ohio, formerly known as the "R. Blanche," is fourth.

Paul Weer called attention to an observation by Speck which may permit us to fix the location of the Lenape on the middle reaches of the Ohio; namely, that carved-stone faces are diagnostic of Lenape occupation.³¹ Glenn A. Black, with his usual thoroughness, has made a search of the literature for reports of carved-stone

³¹ Speck, Frank G., *A Study of the Delaware Indian Big House Ceremony . . . (Publications of the Pennsylvania Historical Commission, II, Harrisburg, 1931)*, p. 43.

faces in the Mississippi Valley, with the following results: one at Portsmouth, Ohio, one near Lawrenceburg, Indiana, two from Gallatin County, Kentucky, just across the Ohio from Lawrenceburg, one in Ross County, Ohio, another from an unknown location in that state, and one in Belmont County, Ohio, just across the river from Wheeling, West Virginia. Recently another carved-stone face has been discovered in the Cincinnati Art Museum that probably came from Ohio, Indiana, or Kentucky.³²

Here is a suggestion, at least, that the "middle reaches of White River" are the middle reaches of the Ohio, for the carved-stone faces found there have exactly the same cast of features as the wooden images of heads illustrated in Speck's monograph on the Delaware Indians' Big House Ceremony.

Black thinks there is a possibility that these carved-stone faces were left by the "Intrusive Mound Culture" and calls attention to the seeming relationship of like traces in the mounds of Greene County, Indiana, Montgomery County, Michigan, several Ohio locations, and in Jefferson and Tomkins counties, New York.

Book V, verses 9, 10, "When Little Fog was chief, many of them went away with the Nanticoke and the Shawnee to land in the south." The date here would presumably be about 1240 and not inconsistent with the known movements of the Shawnee.³³

Book V, verse 14, "... was chief in the Talega country." This location is not very definite, for on some old maps the entire Ohio River is marked with the name Allegheny—not just the one branch.³⁴ The date is about 1267.

Here, too, the Snakes are mentioned again. Since no Shoshonean tribe was in this region, this points to some Siouan, Algonquian, or Iroquoian tribe.

Book V, verses 19, 20, and 21. About 1327 the Lenape cross the Talega Mountains. Why did the Lenape move east? Is it reasonable to suppose any tribe living in the fertile Ohio Valley would move over the rough mountains and into a less

³²For further discussion see *post*, pp. 326-27.

³³Voegelin, Erminie W., *Mortuary Customs of the Shawnee and Other Eastern Tribes* (Indiana Historical Society, *Prehistory Research Series*, II, no. 4, March, 1944), pp. 373-74.

³⁴The insert of Lewis Evans' map of the Middle British Colonies in America, 1755, "A Sketch of the remaining part of Ohio R. &c," labels the Ohio River at the mouth

of the Wabash as "Ohio or Allegeny R." In the "Analysis" which Evans prepared to go with the map he gives maps, journals, and narratives of traders as sources for his data. Evans, Lewis, *Geographical, Historical, Political, Philosophical and Mechanical Essays. The First, Containing an Analysis of a General Map of the Middle British Colonies in America . . .* (Philadelphia, Printed by B. Franklin and D. Hall, 1755).

fertile region unless they were driven out? There is little indication in the legend that this was the case, but the Lenape would naturally not emphasize their defeat.

They probably crossed the mountains through the Juniata-Susquehanna pass, or along the Kanawha or Monongahela to the Potomac. About 1354 they went north and lived along the Susquehanna. It should be possible to discover archaeological proof of their occupation in this territory.

They then lived in the sassafrass country, eastern Pennsylvania, and New Jersey, and reached tidewater—the Delaware River and Bay (?) in 1396.

Book V, verse 40. Here they were, too, when the Whites came floating from the east, 1498.

Book V, 47. At a long, landlocked lake.

Book V, verse 50. At the rushing waters.

These last two lines have been taken to refer to either Lake Erie or one of the long lakes in New York state and Niagara Falls.

Since the accepted archaeological view is that the Munsee came into New York from the north, that division of the Lenape must have passed via the Illinois and Kankakee valleys through southern Michigan and north of Lakes Erie and Ontario thence south into New York state. Since this *Odyssey* seems to describe a more southern route, it is reasonable to believe that the narrative originated with the Unami division of the Lenape who may well have followed such a passage as described, inhabiting, as they did, southern New Jersey and southeastern Pennsylvania at the coming of the white man.

This brings us up to historic times, and it should be noted again that the dates of several of the chiefs mentioned in the “Fragment” during the time after 1620 may be verified by history.

PARALLELS TO THE DELAWARE WALAM OLUM

BY ERMINIE W. VOEGELIN

THE fact that the cultures of various tribes within a relatively homogeneous culture area are apt to show few distinctive traits and are chiefly distinguishable one from another on the basis of selection and arrangement of elements which have a wider distribution, has been demonstrated more than once by anthropologists. In his study of the Ghost Dance Leslie Spier shows that this dance, which caused such disturbances among certain Plains tribes at the end of the nineteenth century, was not, as James Mooney had held, a recent cultural phenomenon developed by the Paviotso to answer spiritual needs of the moment. Rather, the ultimate origin of the Ghost Dance lay in a much older dance form that Spier refers to as the Prophet Dance. This earlier dance form which preceded the Ghost Dance "was known to all the tribes of the northwestern interior, without exception, from the Babine and Sekani on the north to the Paviotso of western Nevada far to the south." In post-White times the Prophet Dance was the source not only of the Ghost Dances of 1870 and 1890, but of several other religious movements among Plateau tribes.¹

Cora Du Bois, working concurrently but independently of Spier on the Feather cult, one of the other religious movements which sprang from the Prophet Dance, also arrived at the conclusion that the Feather cult of the Middle Columbia River tribes was largely derivative of older practices. In her study Du Bois says, "The striking characteristic of the Feather cult was its lack of originality. With the exception of spinning [whirling] and vomiting in the initiation rites, every feature can be traced to some definite and prior source."² Verne Ray, in a review of Du Bois'

¹Spier, Leslie, *The Prophet Dance of the Northwest and Its Derivatives; the Source of the Ghost Dance* (General Series in Anthropology, No. 1, 1935), pp. 5-7.

²Du Bois, Cora, *The Feather Cult of the Middle Columbia* (General Series in Anthropology, No. 7, 1938), p. 43.

monograph, points out that even the two traits that she mentions are "of doubtful originality" in the Middle Columbia region. "Vomiting is found . . . as a ritual and curative practice. The whirling is easily associated with the traditional winter dance demonstrations of . . . persons with whirlwind as a guardian spirit."³

In my own analysis of mortuary customs of the Shawnee and other eastern North American tribes the conclusions arrived at were similar to those of Spier and Du Bois. Out of a total of several hundred Shawnee burial traits, only twelve could be isolated as diagnostic or unique to the Shawnee. Moreover, six of these unique traits occurred in slightly recast form or entirely apart from burial customs in the cultures of eastern North American tribes other than the Shawnee.⁴

What holds for particular complexes also holds true for the culture of a tribe as a whole. Webb, in searching for distinctive Cherokee traits, found that "it is not easy to determine what traits are definitely diagnostic of Cherokee material culture" since so many traits attributable to the Cherokee have distributions far beyond this particular tribe.⁵ Likewise, in my own study of the comparatively simple culture of the Tübatulabal Indians of California, I was able to isolate only three features of Tübatulabal culture which seemed unique to that tribe.⁶ Since that particular study was made, one of these three traits has been found among the Kawaiisu, southern neighbors of the Tübatulabal, thus depriving this trait of its diagnostic value for Tübatulabal culture.⁷

At first glance, the Delaware Walam Olum appears to be a cultural complex unique to a single eastern North American tribe and, moreover, lacking in antecedents among the Delaware or any other eastern North American group. If it actually were such, there would, of course, be good reason for questioning the authenticity of the Walam Olum as a native production. Is its uniqueness, however, due to the fact that no parallels can be found for the various elements or traits which enter into the Walam Olum, or rather to the fact that certain elements, common

³Ray, Verne, Review of Dubois, *The Feather Cult of the Middle Columbia*, in *American Anthropologist*, N. S., XLI (1939), 320-21.

⁴Voegelin, Erminie W., *Mortuary Customs of the Shawnee and Other Eastern Tribes* (Indiana Historical Society Pre-history Research Series, II, No. 4, 1944), pp. 317-19.

⁵Webb, William S., *An Archaeological Survey of the Norris*

Basin in Eastern Tennessee (U.S. Bureau of American Ethnology, *Bulletin* 118, Washington, D. C., 1938), pp. 371, 374-75.

⁶Voegelin, Erminie W., *Tübatulabal Ethnography* (*Anthropological Records* [University of California Press], II, 1938), pp. 6-7.

⁷Zigmund, Maurice, Kawaiisu field notes. MS.

to several eastern groups, occur in unique juxtaposition in the Delaware document?

If we analyze the Walam Olum in respect to its major elements, we find that the complex as a whole is the sum of several parts, namely:—

1. Pictographs—presumably painted on sticks; used as mnemonic devices for songs; songs presumably esoteric.
2. Primeval water—deluge motifs.
3. Genealogy of chiefs—wanderings of bands under chiefs.

The problem is to determine whether any or several of the above-mentioned traits occur among eastern North American tribes other than the Delaware. Regarding the first point, the use of pictographs, Schoolcraft notes that pictographs were used by the various Algonquian-speaking tribes, as well as by the Siouan Winnebago, Dakota, and other Plains peoples neighboring to the Algonquians on the west and south. He comments:—

“It is known that such devices were in use, to some extent, at the era of the discovery, among most of the tribes, situated between the latitudes of the capes of Florida, and Hudson’s Bay, although they have been considered as more particularly characteristic of the tribes of the Algonquin type. . . .

“After our arrival at St. Anthony’s Falls, it was found that this system of picture writing was as familiar to the Dacotah, as we had found it among the Algonquin race. At Prairie du Chien, and at Green Bay, the same evidences were observed among the Monomenees, and the Winnebagoes, at Chicago among the Pottowatomies, and at Michilimackinac, among the Chippewas and Ottawas who resort, in such numbers, to that Island.”⁸

Pictographs painted on sticks or tablets of hard wood, in contrast to those painted on birch bark or buffalo skins, have a more restricted distribution; such have been specifically noted and discussed by Fenton for the following tribes: Chippewa, Kickapoo, Shawnee, Montagnais, Cayuga (Iroquois), and the Delaware, in a recent monograph. Fenton concludes that, “In general, these engraved and painted sticks that we have been discussing are mnemonic devices to aid in recounting

⁸Schoolcraft, Henry Rowe, *Oneóta, or Characteristics of the Red Race of America* (New York and London, 1845), pp. 27, 32. For the questionnaire on pictographs com-

posed by Schoolcraft see his *Information Respecting the History, Condition and Prospects of the Indian Tribes of the United States . . .* (6 volumes. Philadelphia, 1851-57), I, 554-55.

tribal history, or they carry formulae for some sequence of phenomena that must be preserved unaltered: lists of dates, events, names, places, significant stations in prayers, songs, order of ceremony, mythology, or treaties. . . .”⁹

The Delaware appear to have had four uses for incised sticks; namely, (1) as prayer sticks in their Big House ceremony, (2) as aids in reciting the Walam Olum songs, (3) as mnemonic devices used in 1762 by the Delaware Prophet for reciting prayers, and (4) as drumsticks. Speck, in his monograph on the Big House ceremony, describes and pictures the Big House prayer sticks and the drumstick.¹⁰ None of the Delaware Prophet's prayer sticks have been preserved,¹¹ nor are the whereabouts known of the sticks formerly used in reciting the Walam Olum.

Several specimens of Shawnee prayer sticks made by the Shawnee Prophet in the late eighteenth century have been preserved; one such “slab,” or prayer stick, thirteen and a half inches long and inscribed on one side with thirteen characters, is pictured in Galloway's *Old Chillicothe*.¹²

The aboriginality of marked sticks which were used as mnemonic devices is discussed by Fenton, who presents evidence for the Montagnais that such sticks were probably a native product which Jesuit missionaries early made use of for teaching prayers to their Indian converts.¹³

Turning to our second major point, the primeval water-deluge motifs which are all-important in Books I and II of the Walam Olum, we know that these two motifs are widespread in eastern North America, as well as in other parts of the continent.¹⁴ The Walam Olum version of the deluge myth parallels in structure and in many details versions found among Algonquian tribes neighboring to the Delaware, such as the Shawnee.¹⁵

Corroborative material from within Delaware culture, as well as parallel material from other eastern North American cultures, exists for our third point, namely, the genealogy of chiefs and the wanderings of Delaware bands under these chiefs.

⁹ Fenton, William N., *The Roll Call of the Iroquois Chiefs: A Study of a Mnemonic Cane from the Six Nations* (Smithsonian Miscellaneous Collections, CXI, No. 15, 1950), p. 7.

¹⁰ Speck, Frank G., *A Study of the Delaware Indian Big House Ceremony* (Publications of the Pennsylvania Historical Commission, II, Harrisburg, 1931), p. 69; p. 73, fig. 22; p. 83, fig. 24; p. 87, note 4; p. 105, note 1; p. 149, note 3.

¹¹ Fenton, *The Roll Call*, p. 9.

¹² Galloway, William Albert, *Old Chillicothe . . .* (Xenia, 1934), pp. 150-53; Fenton, *The Roll Call*, p. 9.

¹³ Fenton, *The Roll Call*, p. 9.

¹⁴ Thompson, Stith, *Tales of the North American Indians* (Cambridge, Mass., 1929), p. 279, note 29; 286-87, note, 57.

¹⁵ Voegelin, C. F. and Erminie W., *Shawnee Myths and Tales*. MS.

John Oldmixon, a contemporary of William Penn, in his *British Empire of America*, states that he was "assur'd by Mr. Pen himself, that the following Relation is true. . . . While the Captain General [a Delaware chief] was in the Bagnio [taking a steam bath], he first sang all the Acts of the Nation he was of, to divert him from the Troublesomeness of the Heat; then those of his Ancestors, who were Nobles and Generals in the Country; and last of all, his own."¹⁶ Likewise Loskiel, writing in 1794, remarks that, "The Delawares delight in describing their genealogies and are so well versed in them, that they mark every branch of the family with the greatest precision. They also add the character of their forefathers; such an one was a wise and intelligent counsellor, a renowned warrior, or a rich man, etc."¹⁷

The Fox, a Central Algonquian tribe, preserve traditions which "in general outline. . . . are reasonably accurate." Truman Michelson, working with them *ca.* 1920–1930, found their traditional history quite accurate as far back as 1790: "Dubuque and the lead mines are well remembered, the substance of the treaty of 1804, the name of the chief who helped the British in 1812, *the names of interpreters going back a long way . . .*"¹⁸ (italics ours).

Among the Huron and the Iroquois the occasion and manner of relating "the stories which they have learned regarding their ancestors, even those most remote," "the genealogy and origin of the Iroquois," and "their fables, their genealogies, and their stories" are vividly described by Paul Ragueneau for the Huron of 1645–46 and Claude Dablon and Father Millet for the Iroquois during the latter part of the seventeenth century.¹⁹

All of the above material suggests that the preservation of long lists or genealogies of tribal leaders was not a phenomenon restricted to (a) a single Delaware production embodied in the Walam Olum, without parallel instances in Delaware cul-

¹⁶ Quoted in Myers, Albert Cook, *William Penn. His Own Account of the Lenni Lenape or Delaware Indians 1683* (Moylan, Pa., 1937), pp. 55–56. I am indebted to Paul Weer for this reference.

¹⁷ Loskiel, George Henry, *History of the Mission of the United Brethren . . .* (London, 1794). This work is based mainly on David Zeisberger's MS. History of the Northern American Indians, written in 1779–80, and published in *Ohio Archaeological and Historical Publications*, XIX (1910), 1–189. It will be noted that both works preceded,

by several decades, the gift of the Walam Olum to Dr. Ward in Indiana in 1822.

¹⁸ Jones, William, *Ethnography of the Fox Indians*, edited by Margaret Welpley Fisher (U. S. Bureau of American Ethnology, *Bulletin* 125, Washington, D. C., 1939), p. 7n.

¹⁹ Thwaites, Reuben Gold (ed.), *The Jesuit Relations and Allied Documents* (73 volumes. Cleveland, 1896–1901), XXX, 61; LVIII, 185–87, 211. I am indebted to Paul Weer for these references.

ture, and (b) to Delaware culture only. Other Eastern Woodlands tribes also preserved genealogical material, and, if we go only a little farther afield, we also find specific evidence for it in the Southeast. In 1704 M. de la Vente made the following observation concerning the Natchez, a Southeastern tribe whose culture is generally held to have been more complex than that of any other eastern North American group: "The Natchez, who have the most definite traditions and who count 45 or 50 chiefs who have succeeded each other successively, say that they came from a very far country . . . which is situated according to our reckoning to the northeast. . ."²⁰ (italics ours). If the latter part of this statement has any validity, the Natchez-Delaware parallel in preserving genealogies is not as remarkable as it seems on first glance. As yet, however, no early northeastern location has been demonstrated for the now extinct Natchez.

Our conclusion is that none of the elements found in the Walam Olum are unique to the Delaware; all of them are to be found in the cultures of surrounding tribes. Many are well attested for at such early dates that it is dubious that they represent European borrowings. These findings are in line with those of Spier's for the Ghost Dance, Du Bois' for the Feather cult, my own for the Tübatulabal and the Shawnee. The Walam Olum is a significantly unique Delaware document, but its uniqueness consists in the manner in which several culture traits have been fashioned into a distinctive complex. The traits themselves are not unique to the Delaware.

²⁰ Gasselin, M. L'Abbe Amédée, *Les Sauvages du Mississippi (1698-1708). D'après la Correspondance des Missionnaires des Missions Etrangères de Québec* (15th International

Congress of Americanists, 2 volumes. Quebec, 1906), I, 31-51.

AN ARCHAEOLOGICAL CONSIDERATION OF THE WALAM OLUM

BY GLENN A. BLACK

ORIGINAL interest in the Walam Olum was stimulated as much by the opportunity of bringing the several disciplines of anthropology into focus on a common problem as in establishing the validity of the story itself. Internal evidence precludes the possibility of its being an intentional fabrication by someone—either a nineteenth-century Indian or a Caucasian. The purpose of this chapter is to consider whether through archaeology additional support can be given to the authenticity of the legend and greater depth lent to Lenape history. To “prove” the story archaeologically is, at least for the time being, impossible. In fact it may never be possible. Archaeological evidence when applied to a problem of this kind is largely inferential. It may point to certain conclusions, but it cannot establish them absolutely. As a prelude to actual consideration of the document vs. archaeology, some of the difficulties inherent within such a problem should be pointed out.

In examining the legend the archaeologist’s first problem was to endeavor to identify a basic culture complex, or group of material traits, that might be called Lenape, and then to see if that complex could be traced back through time over the migration route of the Lenape as described in the Walam Olum.

Simple as that may sound, the obstacles encountered in the assignment were such as almost to thwart the program. In regard to the route followed by the Lenape, it should be stressed that geographical markers and mentions of events which are naturally necessary for archaeological verification, are few and not explicit; though certain geographical areas are mentioned, they remain vague and

vast to the reader. The possibility that some of the sticks may have been out of their proper order, or even lost, should not be overlooked. The latter contingency is implied by Rafinesque who said that he received only "some" of the pictographic sticks. Hence the element of time, so important to archaeologists, remains debatable.

Much of the vast area apparently covered in the migration legend remains untouched by archaeological research, or unreported upon. No observations, no matter how general, can be made for some of the regions. Further, even in areas where the archaeology is relatively well known, few over-all conclusions have been reached as to its ethnic identity and significance. Further, in these same areas, the use of ambiguous classificatory terminology which has become the dictate of the archaeologist must be coped with, for, until an assemblage of archaeological traits can be assigned beyond reasonable doubt to an ethnic group, then that complex of traits should be referred to in terms devoid of ethnic meaning. In other words, the traits cannot often be assigned to a tribe by name. Such terms are "labels" of convenience to the archaeologist but confusing and mostly devoid of meaning to the layman. Even more objectionable is the possibility that the "label" often denies reality in obscuring the ethnic significance of the material involved.

To the difficulties inherent within the story record itself must be added the formidable gaps and perplexities in our archaeological knowledge. Chief among these is again the matter of time.

Dating, either absolute or relative, of prehistoric complexes and sites, is a matter of engrossing interest to the archaeologist. Through the medium of tree-ring dating in the Southwest and the written records of Middle America, a well-established sequence of cultural progression is known in these two areas. Elsewhere in North America indirect methods of period dating have had to be depended upon. These consist of typological studies, cross dating, seriation, actual physical stratigraphy, and the occasional association of artifacts with some roughly datable geological or climatic phenomena.

These methods leave much to be desired, but recently a new method of arriving at dates by means of radioactive carbon has been developed by Dr. W. F. Libby of the University of Chicago. Organic materials, either plant or animal, found in an archaeological site can now be dated by determining the amount of radiocarbon

such specimens retain. All living things maintain a radiocarbon content equal to that of the atmosphere around them. Although this substance constantly disintegrates at a regular rate, a part of the life process keeps it replenished through chemical action. With death, however, the equilibrium is broken; disintegration continues at the same regular rate, but without replenishment. By measuring the amount of radiocarbon remaining within an organic archaeological specimen, the time elapsed since the death of the organism can be determined within a year error of from 5 to 10 per cent. Here, then, is a valuable new tool added to the archaeologist's kit.¹ It may provide dates for sites and complexes where otherwise even relative dates would be impossible.

During the last few years, especially the last decade, the sequence of cultures in the Mississippi-Ohio valleys has been rather well worked out by the indirect methods mentioned previously. Although only relative so far as age was concerned, the sequence did have order, and no serious objection could be raised against it. Recently some dates have been derived through the radiocarbon method for certain manifestations of culture forming a part of this occupation sequence. In one instance the sequence has been completely reversed, apparently, and in other cases the dates appear to be too early in some and too late in others. At this time this situation need not reflect question either upon the basic techniques involved in the radiocarbon method, or upon the sequence which had previously been established. In some instances the material submitted to the physicists for dating was extremely ill chosen since it had been originally recovered under questionable field methods and had been in museum storage under "uncontrolled" conditions for many years. Also, the method is new and only with time will come inevitable refinements and the elimination of imponderables and as yet unknown factors which enter into such a sensitive process as this. In view of these facts it would seem wise to look askance at these dates until a greater number of them are forthcoming, from more sites and from materials recovered under more favorable conditions. It may, of course, ultimately be shown that the dates now in question

¹A popular description of the method may be found in *Natural History*, LX, no. 5 (May, 1951), pp. 200-9; dates arrived at by the method and a discussion of their significance is in Frederick Johnson (ed.), *Radiocarbon Dating*

(*Memoirs of the Society for American Archaeology*, no. 8, supplement to *American Antiquity*, XVII, no. 1, pt. 2, July, 1951).

are correct, and the relative sequence is wrong. When and if that time comes, much that is said hereinafter will be invalid and there will generally "be a lot of explaining to do." It does not make easier the present study though, to work under the realization that the time element in both the recorded story and the archaeological manifestations which must be dealt with is in question.

In order to establish a complex of traits that might be called Lenape, it was necessary to approach the problem from the period of history and work back into the prehistoric past. There was no alternative. The point of departure, therefore, was the East Coast, around Delaware Bay and along the Delaware River where the Lenape were living when the Whites first arrived. The historic location of the Lenape was midway between the two earliest settlements of the Whites on the coast—Jamestown, 1607, and Plymouth, 1620. Intimate contacts were made with the Lenape by the Dutch and Swedes as early as 1614 to 1638. Book V, verses 58, 59, and 60 of the *Walam Olum* records the Whites coming from the north and south. Mr. Lilly, in his speculations on the chronology of the legend, fixed the date at about 1625.

Following the initial contacts, which were by their nature of the most transitory sort, communication and relations with the Indians increased at a rapidly accelerating rate until before long aboriginal material culture had been broken down and the Indians themselves forced from their native habitat. For a brief interval, perhaps no greater than from initial contact between Whites and Lenape until a permanent colony was established in Delaware in 1638, there was an opportunity on the part of Europeans to record in detail the native culture of the Lenape and to make a matter of record those sites where they were then living. By the year 1700 it is highly probable that the few Indians remaining in their original places of abode were no longer living an aboriginal life so far as material things were concerned. These points are raised here for the very good reason that in order to approach pre-history from history, the archaeologist is dependent entirely upon the records left by those who had first contact with the Indian and observed him in his natural environment. In order to identify a projectile point type, or an axe, or a gorget, or a method of decorating pottery vessels, as Lenape, some individual

would have had to describe specifically such an object and state beyond question that that object was made and in ordinary use by the Lenape. The record should also indicate where the observation was made, locating the site in such a way that it could be found today and explored for final verification of the recorded statements. This, it is sad to report, was seldom done.

Those who had first contact, either briefly or at length, with the Indians of the Delaware Bay and River area were not ethnologists. Nor were they historians, or geographers, or cartographers. Their motive was the desire to discover new lands which could be colonized and exploited. The area around what is now Lewes, Delaware, may be cited as an example of the difficulties involved. This, if we may take any stock whatever in early recorded history, was most certainly Algonquian country in the 1630's, and it probably was Lenape. In 1631, under Dutch sponsorship, a small colony was established on Blommaert's Kil at the present site of Lewes. A brick house, surrounded by paliades, was erected for the accommodation of the thirty-three people involved in the adventure. To prepare the way for this establishment, a strip of land some thirty-two miles in length had been purchased from the aboriginal holders in the year 1629. This strip, two miles wide, extended from Bombay Hook south to Cape Henlopen along the west side of Delaware Bay. The sale was confirmed in 1630 and documents have been cited by Weslager which indicate that an Indian village was located on the "southhook of Southriver-bay."² This would have been at or very near Lewes. The documents contain Indian names which undoubtedly are those of important personages connected with the village mentioned and one of the words *may* be the name of the Indian village itself. But where was the village located exactly, and what was the ethnic affinity of the occupants? These matters are left to conjecture by those who prepared the documents.

Maps of the area made subsequently by de Vries and Herrman show stylized symbols for Indian dwellings, but the scale of the maps prevents location of the village today with any accuracy, as Weslager so correctly indicates.³ The village

²Weslager, C. A., "The Indians of Lewes, Delaware and an Unpublished Indian Deed dated June 7, 1659," in Archaeological Society of Delaware, *Bulletin*, IV, no. 5 (January, 1949), p. 6; also, Omwake, H. Geiger, The

Townsend Site, MS (1950).

³Weslager, "The Indians of Lewes, Delaware," in Archaeological Society of Delaware, *Bulletin*, IV, no. 5, p. 7.

was probably at or very near present Lewes and it probably was occupied by Algonquian-speaking Indians. If so they were probably of Lenape affiliation. It would be pleasant to be able to say with assurance that these were not merely possibilities, for at and near Lewes there are some important archaeological sites, and some of these have been excavated. The materials derived therefrom are of the type which one would think of as Algonquian of the late prehistoric period. These matters will be brought up again, but for the present it is well to remember that this is but one of many disappointing factors that thwart the approach to the past from the recent present.

Even if it were possible to say that at Lewes the Lenape had a village in 1631, it would still be impossible to document the type of dwelling they were living in, how they buried their dead, the type of pottery they made and how they decorated it, or the type of projectile point they used. The 1631 colonists, as well as those who made the land purchase in 1629, failed to make such information a matter of record. They probably were well occupied with matters of more concern to them, for within a year the colony had been eliminated by Indian activity.

From 1638 on, to the end of Indian life in the area, there was a considerable bulk of data recorded relative to these folk. Much of it is good ethnographic material, but very little of it has archaeological value, a fact that can be verified by reference to the work of Flannery⁴ and Kinietz,⁵ to cite only two of many such compilations.

A tabulation of traits assignable to an ethnic group such as the Coastal Algonquian, will be a composite of items derived from records left by the first Europeans to have contact with the group being studied, data from subsequent periods up to the time of extinction of aboriginal life in the area being studied, data extracted by ethnologists from Indian informants, and finally, traits which are strictly archaeological. Such a list, when all sources are combined, is impressive and more than revealing to the ethnologist. It is far less impressive and usable to the archaeologist. Study of such a list of traits will immediately reveal the fact that a very small percentage of the traits are of a type to be reflected archaeologically. Most of them are

⁴Flannery, Regina, *An Analysis of Coastal Algonquian Culture* (The Catholic University of America, *Anthropological Series No. 7*, Washington, D. C., 1939).

⁵Kinietz, Vernon, *Delaware Culture Chronology* (Indiana Historical Society, *Prehistory Research Series*, III, no. 1, April, 1946).

social and religious in character and many of the included material traits are vague, indefinite, and of a highly perishable nature.

To explain further, it may be pointed out that such an item as basketry is usually a part of such a list. What kind of basketry, what were the materials used, what was the characteristic shape and did this shape differ from that made by other tribes or ethnic groups? What were the design motifs and how were they applied? The answers are seldom given in detail—and even if they were, it would not be too helpful, since baskets are rarely if ever found in prehistoric sites of the eastern United States. Pottery is usually mentioned as having been made during early times. But what kind of pottery, what was the temper, the shape, the design motif, and how was the motif applied? Occasionally a highly diagnostic trait will be included. An example would be the so-called "semi-lunar knife" of stone. Such an inclusion in a trait list might be considered as Algonquian, and it well may be. But its inclusion in an ethnographic trait table is not based upon historical or known ethnic grounds, since this type of object invariably comes from an archaeological context which itself cannot be associated with any language group at the present time. Ethnic studies, then, are somewhat of a disappointment so far as the archaeologist is concerned.

Maps which were prepared at, or soon after, the initial contacts between Whites and Indians are seldom of specific value. They are generally on a large scale and even though an Indian village may be indicated thereon, they usually fail to give the definite geographical data which would permit its identification and relocation today. Such maps in general are not too reliable. Usually they were prepared by cartographers in Europe from data supplied them at second or third hand, and who themselves never saw the country they were mapping. Names were no less confusing to them than they are to the user today. The wonder is that as many of the maps of this early period are as accurate as they are. Even in those rare instances where a map shows a habitation site in relation to some identifiable geographical feature, such a town or village is seldom named and the linguistic affinity of the occupants cannot be determined. There are exceptions, fortunately, to these general deficiencies but they are few in number.

Still one more factor militates against the historical approach to archaeology

in the East. In no other area of these United States has there been such intensive urbanization and industrialization as in the Long Island Sound, Delaware Bay and River, and Chesapeake Bay areas. It is almost axiomatic that modern cities and towns are built upon the sites of prehistoric peoples. The East is no exception; indeed, the area involved is larger and more completely covered than elsewhere. Weslager was scarcely exaggerating when he said that to find Unami villages one must look beneath the streets of Philadelphia.

This pessimistic prelude has been employed to explain the difficulties inherent in a problem like the current one. And these difficulties are by no means unique to the area under immediate consideration. They hold true in Indiana as was amply demonstrated a few years ago when an attempt was made to approach the past from the present in Allen and St. Joseph counties. In this respect it might be well to mention that sites of the Lenape are known in Indiana. But these well-documented towns were not established until nearly 1800, or almost two hundred years too late for the present purpose. And, too, these towns were lived in for a short while by miserable and wretched remnants of what had once been a proud and numerous people.

In summation, a site to be usable for the purpose of identifying Lenape material culture of the protohistoric and thus late prehistoric period, must be one which, through documentation, can be ascribed to that ethnic group and no other. There must be information on the village, including the type of house, material artifacts, burial customs—place and form of burial, grave goods if any, etc.; and finally the occupants should be identified linguistically. Such a site when found should be excavated with meticulous care with the view toward verifying, if possible, the observations of the original recorder. Not only should the traits of aboriginal origin be verified, but to prove beyond reasonable doubt that the site being explored is the one described, objects of European origin of the time and period of description should also be present. For only then can it be said with some assurance that the site described and the one explored are indeed one and the same.

The conditions for documenting a protohistoric village constitute a large order and one which is seldom fulfilled. Very few sites have been so documented in the

East, and, unfortunately for the purpose of the present study, none of these have been Lenape.

Until a few years ago, archaeological literature ordinarily referred to late prehistoric material in the area under consideration, as either Algonquian or Iroquoian, or the result of "influence" of one upon the other. As a result of the fact that no sites were known to be Algonquian without question, the ethnic term was dropped and materials formerly considered Algonquian were referred to in terms of aspects or foci of the Woodland Pattern—these being the "labels" of classificatory terminology. "Iroquois" and "Iroquoian" seem to have escaped the oblivion which came to Algonquian in spite of the fact that it is often equally questionable whether materials still called Iroquois actually were made by Iroquois people. Although it will be necessary to refer occasionally to material complexes and assemblages in terms of taxonomy in what follows, the term Woodland for the very late prehistoric and early historic periods in the area of historical Lenape domination is being dropped—and for the following reasons.

There is an over-all homogeneity of culture in the area of a late time period which indicates beyond much question that the folk who made and used these things were closely related ethnically and linguistically. This was the area where the earliest contacts between aborigine and European took place and almost without exception the record indicates that the Indians were Algonquian speaking. Unless, then, these Algonquian-speaking Indians had rushed into the area almost coeval with the arrival of Europeans, the materials representing this late pre-contact period must be Algonquian. It takes far greater ingenuity to deny the premise than to accept it. And the implication becomes stronger when it is realized that a site or two which can be documented as having been visited by Captain John Smith produces material of a like nature with that from undocumented sites elsewhere. Taxonomy fails to serve its purpose, and to continue to use Late Woodland when Algonquian will better serve is to deny reality. This, of course, is a broad statement and one which is based upon evidence which might be interpreted differently by other individuals. However, it is doubtful if use of the ethnic term in place of the taxonomic label will find too much disfavor among those most familiar with the area and who have worked with the materials in question.

It was hard to believe that an indisputable Lenape site could not be found, and to put incredulity to the test a group of specialists was engaged by the Indiana Historical Society to devote their energies to locating a contact Lenape site or sites. The persons undertaking this study were William A. Ritchie, Dorothy Cross, Catherine McCann, John Withoft, Richard S. MacNeish, and Edmund S. Carpenter. They worked faithfully, some of them for as much as four years, but at the conclusion of their project no Lenape dwelling site of the contact period could be identified as such without question. The reasons for the failure have been sufficiently detailed above.

The work of these persons was not, of course, fruitless. They expanded archaeological knowledge of the area immensely, and, as will be seen, shed considerable light upon our immediate problem.

Other work pertinent to the problem was being carried on at the same time the above-mentioned investigations were being made. Of particular value was a synthesis by Carlyle S. Smith, made as a part of a general study of previously excavated materials in the New York coastal area. Sites in the state of Delaware have been excavated and recorded by C. A. Weslager, John Sweintochowski, H. Geiger Omwake, Archibald Crozier, Elwood S. Wilkins, Jr., and others interested in the very early history and prehistory of that state. Investigation of the documented site of Patawomeke by T. Dale Stewart and the late Karl Schmitt produced material fitting into the over-all picture of late Algonquian material culture. Pottery from late sites in the Delaware River and Chesapeake Bay areas had been studied by Margaret Blaker and this too forms a part of the immediate problem of formulating a material trait assemblage which, without doubt, is Algonquian and a part of which must inevitably be Lenape. Reports of many of these projects have been published; others will be. The author was given free access to unpublished materials, photographs, and collections deriving from these undertakings, with the mutual hope that out of it all might come the eventual resolution of the Lenape problem.

As implied above, it now seems possible to verify archaeologically the placement of the Lenape as recorded by history. Specifically the area is along the Delaware River from at least Cape May to Minisink Island or slightly above; inland

in central New Jersey between the Atlantic and the Delaware; eastern Pennsylvania and the state of Delaware—the latter the Lenape shared with the Nanticoke. There is also little question but that the Lenape were involved in the occupation of Staten, Long, and Manhattan islands.

Within the above geographical limits, on a common time horizon, there is a cultural homogeneity with modest variation which suggests a single ethnic group. The differences which exist can be related, to a degree, to geographical placement, and may be linked to the historical divisions of the Lenape—Munsee, Unami, and Unalachtigo. It should be noted that between the two extremes—north and south—there may be greater variation in cultural detail than exists between either extreme and the central area. Slightly greater coalescence may exist between the central and southern areas than between central and northern. Such a condition probably reflects a number of causes not the least of which may actually have been a closer relationship between the folk of the central and southern provinces. It is also possible that neighbors of the Munsee—in the north—were of a nature to alter more drastically their material culture; the Iroquois must have had a profound effect upon them, at least in late times. By contrast, in the south—in Delaware and New Jersey—it would seem that Iroquois involvement, if any at all, was ephemeral, and the principal dilution of what may have been a basic Lenape culture was through the medium of other Algonquian tribes in the Virginia—Maryland region, who, in themselves, were not too divergent from Lenape.

Allocation of the three supposed divisions of the Lenape—the Munsee, Unami, and Unalachtigo—to closely defined and sharply specific bounds within the whole area involved is an impossibility. In general the Munsee were in the upper Delaware River basin with headquarters at or about Minisink Island. The Unami were south of the Lehigh River to about the Delaware—Pennsylvania line. They were probably involved in the occupation of New Jersey from the Delaware River to Long Island Sound, either directly or through close relatives, and even on the islands of Manhattan, Long, and Staten. The Unalachtigo have been credited with dwelling in southern New Jersey and adjacent Delaware. Of the three groups this one is the most controversial; one authority asserting that they were “none

other than the Naraticon of southern New Jersey . . . ,”⁶ while Brinton and Mooney state that they were one of the divisions of the Lenape. Recently, Weslager has presented circumstantial evidence to the effect that eastern Delaware, from Cape Henlopen to Duck Creek, was the domain of the Unalachtigo and that they occupied a comparable area to the east in southern New Jersey.⁷

Such a three-way division of the Lenape has historical, linguistic, and ethnic basis, and archaeological material seems to add further verification. It should be pointed out that in the Walam Olum Book V, verses 50, 51, and 52, a division of the Lenape into three groups is mentioned. According to Mr. Lilly’s chronological speculations this would have occurred between 1550 and 1600—far too late for its effect to be so obvious archaeologically. It is conceivable, though, that this is but a hint of a situation which had existed for a considerable time previously.

The preceding statement of a trinominal division being apparent archaeologically is supported by the assumption of Ritchie that Munsee material culture equates with the Castle Creek variant of the cultural complex call Owasco. Castle Creek is the taxonomic “label” for a late Woodland manifestation, mainly in New York, and is derived from the fact that the site which first produced the diagnostic material was located at the point of junction of Castle Creek with the Chenango River in Broome County, New York, some three miles north of Binghamton.⁸ The affinity of Castle Creek with Owasco is also a taxonomic one and the latter is a manifestation of culture, larger in scope than the former, with connections leading back in time. The name Owasco derives from the type site which was located in Cayuga County, New York, on Owasco Lake,⁹ and was excavated by Parker in 1915. Also considered is Smith’s conclusion that what he calls the East River complex of Coastal New York archaeology correlates with an historic Algonquian group which may have been Unami and was, in turn, coeval with Owasco in central New York.¹⁰ Cross, on the basis of the New Jersey Site Survey, assigned all except

⁶ Speck, Frank G., *A Study of the Delaware Indian Big House Ceremony . . .* (Publications of the Pennsylvania Historical Commission, II, Harrisburg, 1931).

⁷ Weslager, C. A., “Indian Tribes of the Delmarva Peninsula,” in Archaeological Society of Delaware, *Bulletin*, III, no. 5 (May, 1942), pp. 30–31.

⁸ Ritchie, William A., *The Pre-Iroquoian Occupations of*

New York State (Rochester Museum Memoir No. 1, Rochester, 1944), p. 64.

⁹ *Ibid.*, p. 29.

¹⁰ Smith, Carlyle S., *The Archaeology of Coastal New York* (American Museum of Natural History, *Anthropological Papers*, XLIII, pt. 2, New York, 1950), p. 155, and Table 1 on p. 107.

possibly very early material to a category which equates well with the materials of Ritchie and Smith.¹¹ Witthoft places the Overpeck type of pottery, derived through his excavation of a site by the same name in Bucks County, Pennsylvania, with Smith's East River complex.¹² He states it to be prehistoric in the lower Delaware Valley, apparently surviving into the full historic period south of Philadelphia.¹³ The same ceramic types, as well as other elements of the accompanying complex, are found in northern Delaware.¹⁴ In southern Delaware the relationships appear to be with southern New Jersey on the one hand¹⁵ and with the western shore of Maryland and the lower Potomac-Rappahannock valleys on the other.¹⁶

Thus, within a material framework which must derive from the Lenape or their immediate kinfolk, there is an interdigitation with some geographical variation. The archaeological variability is no more than would be expected among a late marginal group showing dialectic divergence from a basic form. These statements are made possible through the work of those mentioned above as well as individuals who had labored in the area much earlier. In part it is also the result of the specific efforts of those who attempted, for the Indiana Historical Society, to throw light upon the Lenape problem.

To give a specific list of traits which should be diagnostic of Lenape over the entire area is a difficult and practically impossible task. There is great variability in the data available. Some sites are marked by the report of a few burials with which "typical" material was found. Other sites are reported in detail, with traits characteristic of the village life of the people, but with no information pertaining to death and its incidents. Almost completely absent is data relative to house type, village plan, etc. There is, of course, great variation in the methods of reporting, terminology, and methods of classification. Some sites have been more or less

¹¹Cross, Dorothy, *The Archaeology of New Jersey, Volume One* (New Jersey State Museum, Trenton, 1941), pp. 210-12.

¹²Witthoft, John, "Coastal Algonkian Ceramic Areas in Terms of Pottery Series." MS.

¹³*Ibid.*, p. 2.

¹⁴Weslager, C. A., "The Anthropological Position of the Indian Tribes of the Delmarva Peninsula," in Ar-

chaeological Society of Delaware, *Bulletin*, IV, no. 4 (November, 1947), p. 5.

¹⁵*Ibid.*

¹⁶Blaker, Margaret C., "Pottery Types from the Townsend Site, Lewes, Delaware," in Eastern States Archaeological Federation, *Bulletin* No. 9 (New Haven, July, 1950), p. 11.

completely excavated, while others have been pitted only, or their potential only tested. Some sites produce little if any bone work which may reflect unfavorable conditions for its preservation rather than its original absence as a part of the overall complex. Much of the earlier work was reported without regard for the possibility of occupation of a single site by unrelated folk at successive time periods. However, the recent work of the group sponsored by the Indiana Historical Society has made some progress in solving this stratigraphic problem by establishing a seriation of pottery sherds.

Pottery, therefore, is the best single criterion available for diagnostic purposes and it is due to this fact that the comments which follow are heavily weighted with this medium. Pottery, in all except the earliest complexes in eastern North America, is an ever-present part of dwelling sites showing any evidence of permanence. It was a plastic medium, receptive of the whims and ideas of the potters and the only such medium left for study in quantity. It was strangely resistant to change over long periods, and yet, paradoxically, often reflects an almost spontaneous result of outside influence. A pottery vessel with its characteristics of temper, shape, surface treatment, design motif, and method of design application, may be the only means of identifying a burial culturally, since pottery is often the only imperishable content of a grave. There follows a listing and description of the ceramic and other material traits which we feel should be considered herein as a part of the Lenape material complex.

Stone work is dominated, in quantity at least, by chipped projectile points. Predominantly these are triangular in form, either isosceles or deltoid, with bases which may be straight or concave. Stemmed and notched points are also included, and the notches may be in the sides or corners of the points. These are both narrow forms and broad, with the former the more numerous. Relatively rare in the late manifestations which may be Lenape, they are, nevertheless, found in association with triangular points at most sites and may possibly represent the persistence of a trait which was far more common in earlier times. Larger blades which may have served as knives or "spears" follow the pattern of the projectile points except that triangular forms are less common than those with notches.

In the rough-stone category such items as hammerstones, anvils, and abrading

stones form a part of the complex but are not diagnostic since they saw almost universal use by all aboriginal groups. Pestles and mullers, both used for food grinding, are not common but do occur. Perhaps, in late times at least, most of the grinding was done in wooden mortars with wooden pestles. Mortars of stone are sometimes found in late sites, however.

Two almost ever-present items in the rough stone class are "disks" and "net sinkers." The former are flat, circular disks chipped from sandstone or slate and of unknown use. The latter type may be a disk or large pebble with either an encircling groove in some specimens or notches in opposite edges in others by which it is supposed they could have been used as net weights. "Paint stones" are often represented by fragments of limonite and hematite showing wear from pigment removal.

In ground and polished stone categories the types are more limited. The grooved axe is especially rare although found upon occasion. Celts constitute the most numerous object in this general category. Adzes are found, although not commonly. There is another class of objects, the so-called "problematical forms," which forms a dominant part of the over-all Woodland pattern, but which, in the present instance, takes but a minor role. Pendants and gorgets of stone, usually of some kind of slate, are the two sole representatives of this class which can be included here, and even the gorget is rare.

In bone and antler work there are few if any items which are sufficiently diagnostic to be of use for the present. Bone awls made from splinters of bone, or whole bones of birds or mammals; antler flakers, bone fishhooks, tool sockets, antler-tip projectile points, terrapin carapace cups, bone beads, perforated bone needles, the bone beamer, spatulate-shaped tools, bone picks, and worked beaver-teeth tools, compose the bulk of objects in this group. Bone, being perishable as compared with stone and ceramics, is not always well represented in aboriginal sites. Perhaps if this were not true, the list could not only be expanded, but some of the items would no doubt prove to be diagnostic from frequency of occurrence if for no other reason.

Objects made of shell are limited to beads, circular gorgets which are rare, and shell scraperlike fragments which might have been used as spoons.

Copper and other metals are rare. Beads of copper are found upon occasion and certain objects which appear to have been made from brass attest to the lateness of some sites, since brass is of European origin. Without analysis it is usually impossible to determine if an object is made of copper or brass, and too often tests have not been made. The nature of the object and sometimes a portion of the specimen will show evidence of its White, rather than Indian, provenience.

The ceramic category is by far the largest and most diverse, as well as diagnostic, of all trait categories herein considered. Generally the pottery was tempered with some form of grit but exceptions are often found in sherds that show shell as the aplastic. Shell is normally considered as a marker for lateness and generally this may hold true, but in the area under consideration there are wares of fairly early origin which show the use of shell as the temper. Some sites produce sherds of otherwise identical nature—part tempered with shell and part with grit.

In form the vessels may be elongate with more or less pointed bases or elongate with rounded bases. In the conical form the wall of the vessel may slope inward from the maximum diameter to the lip in a continuous line or it may rise vertically from a constriction above the maximum diameter of the vessel. Collared rims are found in some sites, a trait somewhat indicative of lateness and adulteration of the more basic shapes mentioned above. Upon occasion the base of an elongate vessel may be exaggerated to the extent of being almost lemonlike in shape, but this may well be closely limited to older manifestations.

Surfaces were treated in a variety of ways. Plain surfaces are found but less commonly than other types. The most common outer-wall treatment was a mal-leation by cord-wrapped paddle. Another similar treatment involved the use of textile, apparently wrapped around a paddle. The fabric impression showed a broad and apparently rather stiff warp as compared to the weft cords. The result of this treatment often leads to confusion in analysis and description, for sherds of this type are sometimes referred to as textile impressed and at other times as cord-wrapped-rod impressed. As a matter of fact the two methods may have been employed upon different vessels, for some sherds show unquestionable evidence of the stiff-warp textile and others are certainly stamped or impressed with the cord-wrapped rod. The same difficulty of identification is encountered in Indiana

where, along the lower Ohio River, sherds of both types are found, in association apparently, on many sites. In many instances, after malleation by either cord-wrapped paddle or textile-wrapped paddle, the surfaces were subjected to smoothing—this may be intentional or it might well be the result of natural wear.

Decoration, always the most important identifying feature, is a common characteristic of the pottery here believed to be Lenape. The techniques of application are somewhat varied but in principal are limited to impressing, stamping, or incising. Decoration is usually confined to the rim and lip areas but may sometimes be found well down upon the shoulder of a vessel and even upon the body proper. Lip impressions may be either on the outside, on the top of the lip, or inside, and in the latter case the impressions may extend well down into the vessel interior. Decoration may have been carried out by incising the plastic clay, impressing with individual cord, or impressing a twig wrapped with cord. Stamping with a toothed tool results in the type called dentate stamping. A variation of the cord-wrapped twig technique may have seen the use of the edge of a cord-wrapped paddle which results in an impression somewhat wider than the cord-wrapped twig. This type of impressing was most often used in the lip area of the vessel. The edge of a scallop shell was also used for impressing, in which case a "squigly" line is the result.

Design elements are almost without exception of angular form, with chevron or chevron-like patterns being most common. In the cord-impressed type there may be a combination of the chevron pattern with horizontal impressed lines extending around the rim, below the lip, and above the chevrons. Decorative elements, by whatever means achieved, were often applied over the cord or textile impressions covering the vessel wall surface. A smoothed area was usually prepared for the design elements, however.

The collar, which is so dominant in Iroquois or Iroquoian pottery, is found only in very late manifestations of the complex being considered here, and then is almost entirely restricted to the northern portion of the over-all area. Even here the collars are not as pronounced as in Iroquois and are often referred to as "incipient" collars.

Pipes were also made of clay. These are of the obtuse-angle elbow type and may

be plain or decorated. When decorated, the motifs are angular, probably made by a toothed tool or dentate stamp. Occasionally the likeness of a human face is modeled upon the front of the bowl.

Disposal of the dead runs rather consistently to inhumation in pits, with the body in a flexed position. Single bodies in a pit are the rule but multiple burials are found. Bodies were sometimes extended, and even though burial in the flesh was the common practice, secondary burials of bones only are found. In the southern portion of the Lenape area there are several recorded instances of ossuary burials which obviously belong to this late time period, but whether they are Lenape or of some closely related group is a matter of debate of no immediate consequence. Also in the South there may be a slightly greater tendency toward burial in debris deposits rather than in pits. Many sites, of course, have produced no burials, just as many burial sites have divulged relatively few objects which can be associated with the daily life of these people. There is, therefore, some considerable lack of uniformity in the over-all pattern.

There is a lamentable scarcity of data pertaining to house type, village plan, and other similar traits. This is due not so much to the possibility that such evidence does not exist as to the fact that too often it has not been looked for properly. What is known would indicate that the houses were round with a fireplace in the center and probably followed the general Algonquian and Eastern Woodland pattern.

The dog was domesticated in the form of a small breed and often was accorded a careful burial at death.

There is both historical and archaeological evidence that the Lenape were agriculturists. Such crops as corn and beans are a part of the complex being considered here as late Algonquian and probably Lenape.

For the fabrication of chipped points and blades the locally available cherts, chalcedony, and argillite were used.

The above material framework, which we believe is typical of late Lenape, should make possible the tentative identification of some sites as Lenape, although none of them, it should be emphasized, can be documented historically as such. The identification of the material composing the framework is derived inferen-

tially, as has been stated, from sites and material in the area known to have been occupied by the Lenape. Each of the individual sites to be mentioned later produced some of this type material and taken collectively they produced all of the types. This procedure is somewhat akin to lifting oneself by one's bootstraps, but until documented sites are produced there is no alternative. It would be safe to predict, however, that when a documented Lenape site is found, it will fit into the pattern outlined above.

At the north, in the area of the Munsee, the Bell-Philhower Site is by far the best known of many similar sites. Located in northern New Jersey, adjacent to Minisink Island, it is without any question within the historical domain of the Munsee. The documentation, however, is certainly not sufficiently conclusive to justify the term "Munsee Cemetery" which was used as the title of a report on excavations there by Heye and Pepper.¹⁷ Nor do the results of that excavation provide material evidence that the Munsee were even the occupants of the site at the beginning of history, in spite of the fact that objects of European origin were found in some graves. Much of the aboriginal material found in these graves is of a type more common to Seneca Iroquois of the early colonial period than to sites probably attributable to Algonquian-speaking peoples. Excavations at Bell-Philhower by Ritchie and Carpenter, as a part of the current research program, also leave something to be desired. The site is a mixed one culturally, and no excavation made to date has been of a nature to resolve fully the problems inherent within it. Certainly nothing has been found to date to justify the continued reference to it as a "historical Munsee town." It is included here as possible Munsee largely because much of the material that it produced, fits into the over-all pattern and simply by the process of elimination must be Munsee if Algonquian at all. Under the circumstances it would seem that Ritchie's thesis that the site evidences an occupation at least "from the late prehistoric Castle Creek to the full historic period" and that "Munsee culture as it first appeared on the Bell-Philhower Site, is identifiable with the complex . . . described . . . as the Castle Creek Focus of the Owasco Aspect . . .," is completely in keeping with evidence from other sites and

¹⁷Heye, George G., and Pepper, George H., *Exploration of a Munsee Cemetery near Montague, New Jersey* (Mu-

seum of the American Indian, Heye Foundation, *Contributions*, II, no. 1, New York, 1915).

wholly acceptable in lieu of actual documentation. Ritchie is quite definite in the belief that Castle Creek in New Jersey is an "importation from up river in New York state," and while resident in the New Jersey area underwent change. For the present it is possible to accept, with some misgivings, at least parts of the Bell-Philhower Site and the Castle Creek materials derived from these parts as Munsee.¹⁸

The excavations by Witthoft and MacNeish of the Overpeck Site in Bucks County, Pennsylvania, produced material which is probably Unami, and again the identification is archaeologically inferred and not historically established. The principal ceramic type, so far as our interest is concerned, is one called *Overpeck Incised* by Witthoft.¹⁹ This type is of interest by reason of its occurrence elsewhere within the Lenape area, including the Bell-Philhower Site, thereby strengthening, somewhat, the surmise that it may be Unami in affinity. It equates very closely with a type of pottery called *Bowmans Brook Incised*, the type site for which was on Staten Island near Mariners Harbor. The type name was given by Smith,²⁰ who suggests that the type is intrusive into Coastal New York from New Jersey²¹ and that the carriers of it were probably an offshoot of the Unami. Witthoft agrees that both Overpeck and Bowmans Brook types "apparently represent an art style which Alanson Skinner identified with Lenape" a good many years ago.²² In New Jersey the type *Overpeck Incised* or *Bowmans Brook Incised* has been found at several sites listed and described by Cross—Red Valley,²³ Pine Hill,²⁴ Woodbury Annex,²⁵ Riggins,²⁶ and Abbott,²⁷ to mention a few.

In the state of Delaware the type occurs at the following sites: Moore Shell Heap,²⁸ Slaughter Creek,²⁹ Stanton,³⁰ Crane Hook,³¹ and Townsend.³²

¹⁸Ritchie, William A., *The Bell-Philhower Site, Sussex County, New Jersey* (Indiana Historical Society, *Prehistory Research Series*, III, no. 2, October, 1949), pp. 194, 195.

¹⁹Witthoft, John, "Report on Delaware Research Project" MS.

²⁰Smith, *The Archaeology of Coastal New York*, p. 192.

²¹*Ibid.*, p. 153.

²²Witthoft, "Report on Delaware Research Project" MS.

²³Cross, *Archaeology of New Jersey*, Plate 60a, Figures 1 and 2.

²⁴*Ibid.*, Plate 29b, Figure 4.

²⁵*Ibid.*, Plate 28a, Figure 1.

²⁶*Ibid.*, Plate 14b, Figure 2.

²⁷Photographs from file of New Jersey Museum, provided by Dr. Cross.

²⁸Collection of John Swientokowski, Wilmington, Delaware.

²⁹Witthoft, "Report on Delaware Research Project" MS; collection of Archibald Crozier, Kennet Square, Pennsylvania; photographs provided by Margaret Blaker from files of the Smithsonian Institution.

³⁰Collection of Archibald Crozier.

³¹Collection of Archibald Crozier.

³²Photographs provided by Margaret Blaker from files of the Smithsonian Institution; Omwake, The Townsend Site. MS, January, 1950.

In addition to the type station for *Overpeck Incised*, and those sites mentioned above which have also produced it, there are several sites near London Tract Church in extreme southeastern Pennsylvania which have produced this variety of pottery. These sites are small and are all within a limited area drained by White Clay Creek, which is a part of the Brandywine River system. Elwood S. Wilkins, Jr., who lives in the neighborhood, has made surface collections. Wесlager, in referring to this area, cites a manuscript in the Maryland Archives to the effect that "the Delaware Indians live at Minguannan about nine miles from the head of Elke River and fifteen miles from Christeen and thirty miles from Susquehana river and are tributary to the Senecars and Susquehannocks fifty of them living at Minguannan and the rest upon Brandywine and Upland Creeks."³³ This site, or these closely knit sites, come about as close to being documented as Lenape as any site now known.

In addition to the manuscript cited above there are two maps which show "Indian Town" in the area which now produces aboriginal material mixed with European-made objects. The originals of these maps are owned by the Pennsylvania Historical Society. Copies were furnished the author by Mr. Wilkins. One, the work of Henry Hollingsworth, is dated 1700, while the other, dated 1701, was made by Isaac Taylor and Thomas Pierson. Both are admittedly late for the purpose in hand, but they do substantiate the much earlier statement relative to the "Delaware" Indians at Minguannan. The Taylor-Pierson map also shows an "Indian Town" in the great bend of the Brandywine. The spot, according to Wесlager, is not under cultivation and whether it would provide material verification for the documented location is not known.

Several objects have been found by Mr. Wilkins which indicate early European activity in the Minguannan area. A "bale seal" came from his Site 3, a metal buckle of colonial type from Site 11, a conical-shaped foot from a vitrified clay vessel of European origin from Site 13, and a piece of heavy, dark-green glass bottle which may have seen subsequent use as a scraper. These things are most indefinite so far as time indicators go, but they are all types which could have been

³³Wесlager, "Indian Tribes of the Delmarva Peninsula," in Archaeological Society of Delaware, *Bulletin*, III, no. 5, pp. 35-36, and "Red Men on the Brandywine," MS.

acquired by the occupants of these sites from Whites as early as the maps and document suggest. They cannot be associated, except by inference, with aboriginal material since they are all surface finds. Some minor excavations have been made at Site 3 by Mr. Wilkins which indicated that the only difference between the surface sherds and subsurface pottery was that the excavated fragments were much larger.³⁴ It is probable that these sites indicate not only a lateness of occupation but perhaps a lengthy one by a small group of people which could have lasted until 1701.

It is entirely possible that excavations in the sites of this area would go far toward a further resolution of the Lenape problem in general and the question of the Unami in particular. Also, it should be pointed out, there are materials here suggesting an occupation earlier than seems probable for Lenape. Only by excavation can the temporally distinct complexes be properly separated. *Overpeck Incised* pottery here is important, for this area, like the Overpeck Site, is within the confines of traditional and historical Unami territory.

One of the few well-documented Algonquian sites in the East is the village of Patawomeke (Potomac), which was visited by John Smith in 1608 and documented by him in 1612 and 1622. It is on the north side of Potomac Creek, near Marlboro Point, in Stafford County, Virginia, and in 1608, according to Smith, had 160 to 200 men.³⁵ The site was explored intermittently during the years 1935 to 1937 by William J. Graham and, after his death, by T. D. Stewart of the Smithsonian Institution in 1939-40. The results of this work provide important data. That the site was well occupied in 1608 is documented historically. Material of a type to verify the correctness of the original contact date was found in unquestioned association with aboriginal material. A large number of traits were assembled which without question are Algonquian in origin. The point of real interest lies in the fact that the pottery from the site fits within the framework for what is herein thought to be Lenape, and some of the sherds found are very close to, if not actually, of the types *Overpeck Incised* and *Bowmans Brook Incised* of Witt-hoft and Smith respectively, which have previously been suggested as being

³⁴Elwood S. Wilkins, Jr., to author, April 28, 1952.

³⁵See Stewart, T. Dale, "Excavating the Indian Village of Patawomeke (Potomac)," in *Explorations and Field-*

Work of the Smithsonian Institution in 1938 (Washington, D. C., 1939), p. 87. See also similar reports from the Smithsonian Institution for 1939, 1940.

Unami. These sherds are not, however, typical for the Patawomeke Site. They were "found in a pit under the 'moat,'"³⁶ and might, therefore, be somewhat earlier in time than the pottery typical for the site and the type which was found "prevailing on the surface."³⁷ The sherds considered as being typical are called *Rappahannock Incised*, but the styles, shape, decorative motifs, and method of design application of this variety conform to the over-all pattern outlined previously. Further, associations elsewhere of all of these varieties indicate that the time gap between the *Overpeck*, *Bowmans Brook*, and *Rappahannock* cannot be greater than the specific problem allows—if existent at all. On the ground that a time differential greater than that allowable might be assumed between *Overpeck* and *Rappahannock*, because the former is grit tempered and the latter is shell, it should be recalled that tempering medium is not an infallible indicator of time, and shell, as suggested by Witthoft³⁸ and Smith³⁹ is found early in the pottery of the coastal area. Shell was also an occasional medium of tempering pottery in Early Hopewellian times in the Illinois River Valley.⁴⁰

Much of the pottery at Patawomeke has had the exterior wall paddled with a tool wrapped with a piece of the stiff-warp textile previously mentioned. This results in a fabric-impressed variety of ware over which the design elements were incised, or stamped, or impressed in the rim area. In this respect Patawomeke relates closely to sites in southern New Jersey and Delaware as will be mentioned subsequently.

Patawomeke was a village of the Potomac subdivision of the Powhatan tribe of Algonquian-speaking Indians. Their closest relatives were probably the Conoy who, in turn, are sometimes identified with the Kanawha River area of earlier times. The Powhatan also were closely related to the Nanticoke and all were corporate, materially, ethnically, and linguistically, with the Unami. It would be more surprising, therefore, not to find pottery thought to be Unami in a Potomac village than it is to find it. Both are a part of one and the same over-all pattern.

³⁶ Margaret Blaker to author, January 16, 1952.

³⁷ Stewart, "Excavating the Indian Village of Patawomeke (Potomac)," in *Explorations and Field-Work of the Smithsonian Institution in 1938*, p. 87.

³⁸ Witthoft, "Coastal Algonkian Ceramic Areas in Terms of Pottery Series." MS.

³⁹ Smith, *The Archaeology of Coastal New York*, Table 4, Figure 3, p. 137.

⁴⁰ McGregor, John C., "The Havana Site," in *Hope-wellian Communities in Illinois*, edited by Thorne Deuel (Scientific Papers Vol. V, Illinois State Museum, Springfield, 1952), p. 70.

The points of most radical departure would be geographical and numerical, for the pottery type—*Rappahannock Incised*—is of more frequent occurrence in the south part of the Lenape area than in the north, having an affinity with southern Delaware and New Jersey but not at all limited to these two areas.

In summary, it may be said with some confidence that the type of pottery called *Overpeck Incised* is representative of a late prehistoric and very nearly historic period in a respectably large but close-knit area presumed to have been Unami domain. Those sites which produce it in greatest abundance may be more or less pure Unami and the others are dwelling places of the Munsee on the north and Unalachtigo-Nanticoke-Powhatan on the south.

In southeastern New Jersey, as a result of the survey made a few years ago by Cross and the more recent investigations by Catherine McCann as a part of the current project, a type of pottery called *Riggins Fabric Impressed* was found rather commonly. The variety takes its name from the surface treatment which is much like, or identical to, that described as *Rappahannock Fabric Impressed*. Riggins, the name of the site where it was found in some quantity, is north of the village of Othello, Cumberland County, New Jersey, within the drainage of Cohansey Creek.⁴¹ This Riggins type of pottery is common in the counties of southwestern New Jersey, south of Camden, which area coincides with the traditional territory of the Unalachtigo. *Riggins Fabric Impressed* quite obviously belongs to the same time period as the other varieties—*Overpeck*, *Bowmans Brook*, and *Rappahannock*—and Castle Creek and Owasco, as is well shown by the inter-play of all types in association with each other from site to site. The Riggins variety seems to equate more sharply with pottery found at the Townsend and Slaughter Creek sites in southern Delaware, and with the Rappahannock-Potomac area of Maryland and Virginia than it does with the more northerly sites which may be Munsee. It should be added, though, that it is not limited to the former areas completely.

The Riggins type may well be the pottery of the Unalachtigo, and its close similarity with varieties which may be either Nanticoke and/or Powhatan reflects the uncertainty that exists relative to the Unalachtigo. It will be recalled

⁴¹ McCann, Catherine, "Excavation at Some Late Sites in New Jersey." MS (1950), p. 31.

that this traditional division of the Lenape is less surely established as a divisional entity than Munsee and Unami. In any event, it seems permissible to speculate that the area from Camden south to and including Cohansey Creek is the area of the Unalachtigo and that the adjoining area in Delaware was equally their homeland. Also that the pottery type, *Riggins Fabric Impressed*, is a part of the Lenape complex.

In conclusion it should be restated that within the area of historical Lenape involvement there is a homogeneity of material culture which is indicative of a single basic group, on a common time level, but with minor variations which may be due to a number of causes, but which in many cases may be found to correspond to dialectic divergencies. If history can be depended upon at all, then the area we have been considering is wholly that of the Algonquian generally, and of the Lenape with their close affiliates specifically. The time is late prehistoric and protohistoric. The evidence seems favorable to the thesis that the sites mentioned so far, and the materials furnished by them, are representative of Lenape culture at the close of the prehistoric period, say about A. D. 1600. To make such a statement without a good historically documented Lenape site is pushing the potential of the "historical approach" pretty hard, but there seems to be no alternative unless one continues to speak in terms of taxonomy of which there would then be no foreseeable end.

So far archaeology would seem to validate the concluding verses of the Walam Olum in that the area is right, the time period is right, and the suggestion of trinominal division within the over-all pattern bears out the record of such a division. But all of this is late in time and hardly provides a fair test of the validity of the migration legend.

The basic complex which we have been considering is not at all shallow temporally. That it has depth and perspective is suggested by the fact that these people were firmly entrenched in the area at the time of European arrival. The sites are numerous and give some signs of permanency of occupation of quite a few years. Also, there is no evidence within the over-all material complex which would imply the arrival of new peoples in the area for a considerable lapse of time. In his

chapter on chronology, Mr. Lilly suggests 1396 as about the date of arrival of the Lenape at tidewater. Whether there is enough time between this date and 1600 to account for all of the material within the area thought to be Lenape is a moot point. It certainly is not too long but it may be long enough.

In terms of taxonomy the material so far considered would be classed as Late Woodland and as such would be the natural climax resulting from the passage of time and modest cultural change from the earlier Middle Woodland period. It is to this period, then, that we must look for the ancestry of Lenape culture.

In connection with the Bell-Philhower Site it was stated that Ritchie believed Munsee might equate with the Castle Creek variant of Owasco. This should be expanded somewhat and Ritchie does so with the following: "A few years ago we found on a site in northern New Jersey confirmatory evidence that the Munsee division of the Lenape or Delaware Indians was physically and culturally Owasco. We were able to trace modifications in pottery styles and other traits into the early historic period and thus to link an Algonquian speaking tribal division into our Owasco sequence pattern. Still more recently data have been accumulating, particularly for the Mohawk of eastern New York and the Seneca of the western part of the state, which indicate that the Iroquois-speaking successors of the Owasco owe at least a portion of their blood and traditions to the people we have been describing."⁴² This statement connects an archaeological complex with an ethnic group and implies a close connection between Munsee and Iroquois, a thesis of some possible future interest. Beyond these points the statement projects Owasco back into very early Late Woodland or very late Middle Woodland times. By a natural progression, Owasco seems to reflect a continuum from the still earlier Point Peninsula complex which is coeval with full Middle Woodland. Hypothetically then, Munsee is an expression of material culture having its roots in Middle Woodland.

The Abbott Site, in New Jersey immediately south of Trenton, has been mentioned previously in connection with Overpeck and Unami materials. This is one of the "classic" sites of the East and has been explored upon various occasions in the past. The most recent investigations were those of Cross and the results of her work

⁴²Ritchie, William A., "Their Mouths are Stopped with Dust," in *Archaeology*, IV, no. 3 (1951), p. 143.

will ultimately be published as Volume 2 of the *Archaeology of New Jersey*. This site is important by reason of the obvious length of time it was occupied, its location in relation to the Lenape area, and because of the presence there—apparently an integral part of the ceramic complex—of pottery varieties found within all of the other complexes herein considered. Of the site and its material Cross has said that “at the Abbott Farm there is no observable inrush of foreign material which could be assigned to the Delaware or any other migration from Middle Woodland times onward. Other than a few trade pieces, and possibly a few minor influences, the development seems to be an internal one. McCann has stated the same for sites in southern New Jersey. Thus I would suggest that the Delaware made their entry into New Jersey prior to late Middle Woodland times, probably at a time when paddled-cord or even paddled-net wares appeared, and that they were responsible for the pottery types and other cultural changes which followed.”⁴³ If this be true, then Abbott Site must have been an early nucleus from which dispersion of a part of the Lenape eventually and perhaps gradually took place.

Witthoft has stated that: “Within this Algonkian area of incised pottery decoration is a single ceramic type which would serve as the possible ancestor to *Overpeck Incised* and its relatives. This is the *Abbott Zoned*, a majority pottery type at some parts of the Abbott Farm Site. . . .” And he further concurs with Cross in stating that the type mentioned—*Abbott Zoned*—is quite distinct from any pottery type of near-by areas. Further, he classes it as “a Middle Woodland pottery type,” representing a larger tradition on the Atlantic Slope but with affinities to the New York Point Peninsula complex and “certain Hopewell types of the Illinois [River] Valley. . . .”⁴⁴ Thus, like the possible Munsee material, the complex which may be Unami, can be projected back into Middle Woodland times.

Except for the fact that the pottery of the southern area, that is, southern New Jersey and southern Delaware, is of the general type which we have been considering and is found in association with varieties of pottery more common to the northern area, it would be difficult to place it in its proper perspective so far as

⁴³ Cross, Dorothy, “Delaware and Related Horizons in New Jersey.” MS (1952), p. 12.

⁴⁴ Witthoft, “Report on Delaware Research Project.” MS.

antecedent material is concerned. That it has the same general ancestral background there can be little doubt, but the tendency toward a predominance of textile impressing on the exterior surface instead of malleation with a cord-wrapped paddle seems to be locally specialized. It does, however, have a long background in time, since almost identical varieties are found as far west as the Mississippi in sites which are Woodland in affinity and much older in time than those in the Delaware-Chesapeake Bay areas. In this respect then, the area of southern New Jersey-Delaware, and its complex which may well be Unalachtigo or Nanticoke, or both, has a background in Middle Woodland, as have the two other groups under discussion. If, ultimately, it can be shown that this material is Unalachtigo and Nanticoke, and that its affinity lies to the west of the southern part of the general Lenape area, an interesting bearing upon the *Walam Olum* would be apparent, for in Book V, verse 10, it is stated that the Nanticoke and the Shawnee had gone "to land in the south." According to the speculations on route and chronology, this "split" from a parent body would have taken place while the Lenape were within the "middle reaches of White River" in about A. D. 1250. Although not limited to the southern sites by any means, this textile-marked variety of Woodland pottery does seem to be more common from the Ohio River south just as it is more common in the southern third of the protohistoric Lenape area of the east.

This discussion—which could go on interminably—leads to a conclusion, or decision, which must be made at this point. It must be decided whether the material in the East, thought to be Lenape, is the result of an indigenous development in the coastal region out of a much earlier and nonceramic culture, or is the result of a movement into the area of a people carrying with them the basic elements from which the later complex ultimately developed. We see little justification for the former possibility and believe that this material represents a movement into the eastern area from the West in late Middle Woodland times. Or, to make the statement more direct and to the point, we believe that the Late Woodland material herein thought to be protohistoric Lenape has as its direct ancestral background materials west of the Allegheny Mountains on a late Middle Woodland time level.

Mr. Lilly, in his section on the migration route, suggests that the Lenape reached tidewater—perhaps the Delaware River—about 1396 after having crossed

the Allegheny Mountains. Such a date seems late, but it does permit of a little over two hundred years of occupation of the area prior to arrival of the Whites and subsequent colonization. Prior to the production of dates by the radiocarbon method, a date of about A. D. 1400 for late Middle Woodland in the area both east and west of the Alleghenies, would not have provoked much comment pro or con. Perhaps now, since some of the complexes within the area have been set back so far by this new method, this date of about 1400 will seem completely out of line. However, as was previously stated, until more dates are arrived at by the radiocarbon method, so that more confidence can be placed in them, we are inclined to continue thinking in terms of the rather orderly sequence which had been worked out by the tried and proven archaeological methods. We do not feel, therefore, that A. D. 1350 to 1400 is by many years too late for the appearance along the Delaware River of the material thought to be Lenape. In this respect archaeology and the *Walam Olum* would be in close agreement.

Before taking leave of this eastern area it might be well to inject at this point the feeling shared by some of us that the *Walam Olum*, in all but its later phases, may in reality be the story of the migration of the whole Algonquian linguistic family, and that the Lenape as the keepers of the records, slanted the legend toward their own particular part of the larger family group. This might well account for the presence, in the East and adjacent to the Lenape country, of materials which are obviously Woodland and probably Algonquian, which seem to precede in the area those materials composing what we think to be Lenape. It is within the bounds of reason that Woodland materials quite closely related to Lenape, but north of the Lenape area and older, are the result of a movement by an Algonquian-speaking group across Canada, north of the Lakes, into the coastal region where they were firmly established prior to the arrival of the Lenape east of the Alleghenies. It will have been noted in reading the *Walam Olum*, that there are many instances where groups split away from the parent body and went off to the east, or to the south, or even the west. Such a split, at an early date, might account for the presence of material in Massachusetts, Connecticut, and New York of a closely related complex but not specifically of the type thought to be Lenape and which seems to have appeared in the area earlier than is thought

to be likely for Lenape arrival. Perhaps, ultimately, such problems may be resolved through the combined media of linguistics and archaeology. For the present they can be little more than interesting speculations.

If the implication that the Lenape crossed the Allegheny Mountains and finally established themselves firmly along the Delaware River, and if the material thought to be Lenape in that area is the result of such a movement and not the climax of a cultural development *in situ*, then there should be material evidence of a continuum connecting the eastern area with the country to the west of the Alleghenies but on a slightly earlier time level.

It is with considerable reluctance that we approach the Ohio Valley. Crossing the mountains into the head of that valley, we are in a vast area which contains many diverse cultures. But far less is known of the implications of these cultures than of the cultures in the East. It is a "never-never" land of sorts in which archaeological heresy can be committed by a single simple statement. Here, in spite of many years of explorations, relatively little is known of the over-all relationships of the several cultures involved, and there has been little or no successful application of the "historical approach" to prehistory which would connect the archaeological manifestations with ethnic groups. It is an area wherein much of the archaeological material is of an exotic nature, precluding the possibility of broad distributions which might be the means of projecting the cultures forward in time to an ultimate connection with an ethnic group, or groups. It is an area wherein at least two cultures reached their climax and perhaps degenerated to a normalcy that precludes a completely obvious continuum from the climax to anticlimax. And it is an area in which we feel with some confidence that many of the events of the Walam Olum transpired.

The only material west of the Alleghenies, on the Middle Woodland time level, which could have some bearing upon our problem would seem to be that which is associated with the Hopewellian complex of the Ohio Valley. It is true that much that is in Hopewell, and serves the function of more or less identifying the complex wherever it is found, is generally lacking from the coastal area. However, there are traits which are far more basic and fundamental within Hopewell, which are Woodland in character, on the Middle Woodland horizon, which do

have their counterparts within Late Woodland east of the Alleghenies. There seems little justification for thinking of Hopewell in other than Woodland terms. The traits which tend to set it apart are exotic—almost esoteric even within the culture—and are of an extremely specialized nature, probably reflecting a period of cultural existence of rather short duration at a time when events contributed to acquisition of such traits. The beginnings of Hopewell are scarcely more recognizable than the closing manifestations when compared to the more highly specialized occurrences of the complex. In this respect the beginning and end of Hopewell have one thing in common: an underlying stratum of Woodland throughout that makes for a recognizable continuum. The beginning would seem to be in the lower Ohio Valley, while the end was in the upper valley with the maximum of expression in the state of Ohio. The basic material, Woodland in nature, is not greatly different at either extreme be it in Illinois or New Jersey, but that found in the latter would be much later in time than that found in the former.

The real significance of the Hopewell complex is not known. Neither are its relationships with Adena, quite obvious from a material trait standpoint, understood. The relationship between Hopewell in the north and obviously similar manifestations in the south remains to be elucidated.

As a result of long and careful labors on the part of many field workers during the past two decades, and the synthesis of the results of those labors, an orderly sequence of cultural progression has been pretty well established for the Ohio Valley. If we ignore the problem of the Paleo-Indian of early postglacial times as being completely beyond the realm of immediate interest, the first complex of any magnitude is the so-called "Archaic" culture marked by numerous shell mounds in a part of the area and preceramic sites in other sections where shell mounds are not found. This complex is closely followed, in the upper and central Ohio Valley, by the Adena culture, product of the first of the spectacular mound-building groups. Coeval with Adena, in at least those parts of the area where both are found, is the Hopewell culture of which less is known and more has been written than all others combined. Following Hopewell in the western portion of the valley there is the Middle Mississippi complex and at about the same time, or a little later, in the eastern section of the valley, there is the Fort Ancient cul-

ture; the former definitely survived well into the historic period as a cultural entity and the latter apparently did but to a less marked degree.

The above-named complexes are sharply defined so far as traits which serve as diagnostics for them are concerned. On more general terms the cultural pattern called Woodland encompasses all of these except the Archaic and is divided into Early, Middle, and Late periods. Archaeologically, Early Woodland equates in time with Adena and early Hopewell. Middle Woodland equates with late Adena, Hopewell, and early Middle Mississippi. Late Woodland is coeval with Middle Mississippi and Fort Ancient—Hopewell and Adena having ceased to exist as recognizable cultural entities by this time. This sequence was established by stratigraphy, seriation, and typology and no dates had been worked out for any of the periods except Middle Mississippi, but a good many “guess dates” had been offered as to the year spans involved. The Archaic does not concern the immediate problem but Adena, Hopewell, and Woodland certainly do.

Radiocarbon dates recently arrived at have reversed the order of occurrence of Adena-Hopewell, making the latter much earlier than the former. This not only is in conflict with the picture presented by typology and seriation but may actually be contrary to stratigraphy in at least one instance. Neither is this reversal compatible with the suggested sequence over a much larger area in which many more complexes and an interplay of cultures are involved. The carbon dates of approximately the beginning of the Christian era for Hopewell seem entirely too early and the Adena dates of approximately A. D. 1000 to 1200 are far too late as compared with those for Hopewell. The Adena dates are, however, more in line with guess dates for the complex. There is, admittedly, a tendency toward cohesion in the group of dates for Hopewell which may be significant of things to come when more dates are available from more sites and from more reliable materials. But for the present, for reasons given earlier in this consideration, we will abide by the relative sequence and ignore the carbon dates.

Guess dates for Hopewell and Adena varied as would be expected. There had been a tendency, even before the announcement of carbon dates, to revise them and extend both complexes back in time somewhat. An acceptable version now would place Adena at about A. D. 500 for an average and Hopewell at about A. D.

800 for an average.⁴⁵ As this is written there is a rumor to the effect that two recent carbon dates for Hopewell are in the order of 700 and 900 years ago or A. D. 1000 to 1200. If this should prove to be correct, then a radical departure from the earlier dates is apparent and the new dates would be far more in keeping with guess dates such as those given above and with the implications of archaeological ordering of materials.

It is unfortunately necessary to inject the questions of Hopewell and Adena and dates into this discussion at this point, since we feel that the Lenape were involved in the Ohio Valley prior to their departure for, and arrival at, the east coastal area. Also, the material evidence points to one conclusion and one only—in some manner this evidence is concerned with the Hopewell complex of the Ohio Valley. Perhaps the content of the Walam Olum has influenced reasoning in this respect, but if it has, and if there is material evidence in support of the reasoning, then the document is performing the service which such documents should offer—the interpretation of evidence which might otherwise remain completely incomprehensible. We believe that the "Talega country" and the "middle reaches of White River," as mentioned in Song V, verses 1 and 2, and elsewhere, are one and the same area and that both refer to the Ohio River Valley—especially that part of it east of the Indiana-Ohio line. Mr. Lilly has suggested a period roughly of between A. D. 1100 and 1300 for the occupation of this area. Allowing for the distinct possibility of some accumulative loss in time as a result of part of the sticks not being on hand at the time of the original study by Rafinesque, this period does not depart too far from the current guess dates for the culture complexes involved in the valley at that time. At one time, not too long ago, most archaeologists would have accepted this period as being representative of the climax phase of Hopewell. It is interesting to note, too, that the speculative dates of 1100 to 1300 as given above are very closely in line with the "rumored" carbon dates of 1000 to 1200 mentioned immediately above. In any event, the Middle Woodland period, with Hopewell, is the one involved.

If the evidence so far presented indicates historical Lenape developing out of the

⁴⁵ Griffin, James B., "Some Adena and Hopewell Radiocarbon Dates," in *Radiocarbon Dating*, edited by Frederick Johnson (*Memoirs of the Society for American Archaeology*, supplement to *American Antiquity*, XVII, no. 1, pt. 2, July, 1951), p. 29.

complexes involved west of the Atlantic Slope on the Middle Woodland time level, then there is simply no culture to which one can relate it except Hopewell in the Ohio Valley. It has been stated that both Ritchie and Witthoft see connections between Late Woodland materials thought to be Munsee and Unami respectively, and Middle Woodland. The connections are through and to Middle Woodland cultures of the central Ohio Valley, and if any connection is possible, at this time level, other than with Hopewell, the evidence for it has been completely overlooked. The resemblance between the ceramics of Late Woodland, as represented at the sites in Pennsylvania, New Jersey, and Delaware mentioned previously, and the pottery of Middle Woodland and Early Woodland in the lower Ohio and Illinois River valleys is amazing. As a matter of fact the entire ceramic complex of Late Woodland east of the Alleghenies has its counterpart, type for type, with pottery of the Middle and Early Woodland periods of the Ohio-Mississippi valleys.⁴⁶ Since the latter are mainly identified with Hopewell and later groups in the Woodland category, the conclusion seems justified that there is a connection of greater import than "influence" from one group, or area, to another.

Other items of the Woodland complex can be traced forward from the central area to the east. Such objects as pipes—both obtuse angle and platform—ground slates of the gorget and pendant class, projectile point types, axes, and work in bone are almost identical in both areas. It perhaps is not without significance, too, that Hopewell extends east to the Genessee River in New York which is also apparently the western terminus of Owasco. Hopewell projects eastward to the West Branch of the Susquehanna in Pennsylvania along which the Owasco is also found. Out of the Illinois River Valley the Hopewell complex extends up the Kankakee and across to the St. Joseph of Lake Michigan, probably across southern Michigan to Lake Erie. Here a split may be apparent, for Hopewell is found south of the lake across northern Ohio, and is probably present north of Lakes Erie and Ontario. For north

⁴⁶ Reference is here made to ceramic types illustrated in Griffin, James B., "Some Early and Middle Woodland Pottery Types in Illinois," in *Hopewellian Communities in Illinois*, edited by Thorne Deuel (Scientific Papers Vol. V, Illinois State Museum, Springfield, 1932); Walker, Winslow M., "The Dickson Mound Group," in *ibid.*, sherds shown on pp. 38, 41, Plates XI, XII; McGregor, John C.,

"The Havana Site," in *ibid.*, sherds shown on pp. 72, 85, Plates XXII, XXVII; Cole, Fay-Cooper, and Deuel, Thorne, *Rediscovering Illinois* . . . (University of Chicago Press, 1937), sherds in Plates I and II. This comparison is meant to indicate that the techniques and motifs of pottery decoration are distinctly comparable between the two areas and Early and Late Woodland periods.

of the lakes, Ritchie's work has firmly established the presence of the Point Peninsula complex and it has connections with both Hopewell and Owasco. Connecting links between the lower, central, and upper Ohio Valley with the eastern area are less marked but present, nevertheless. The "high church" Hopewell of the state of Ohio has tended to obscure reality, and when more is known of the over-all archaeology of the state, the sequence of culture and implied movement of peoples will be as obvious there as elsewhere. There is, however, apparently a rather sharp dichotomy of basic material types between the area along the Ohio River and that of the north which may have some ethnic significance.

One more trait which seems to connect the historic Lenape in the east with the Ohio Valley and strengthen its relationship with Middle Woodland, is the carved-stone face mentioned by Mr. Lilly.⁴⁷ The list of occurrences of this type of artifact could be expanded tremendously from studies made since the original search for references to it was made. For instance, Dr. Cross provided a photograph of a stone face which was found in southern New Jersey. Subsequent correspondence revealed the fact that it had been found on a village site along the Cohansey River, below Bridgeton, Cumberland County, New Jersey.⁴⁸ The cultural affinity of the site is not known but that it is Late Woodland is more than probable. It is significant that the site where the face was found is well within the limits of Unalachtigo territory.

A second addition to the list is one illustrated by Vernon Leslie as a feature of Munsee material culture. It was, according to Leslie, found on Minisink Island, and is one of "at least five of these" found in the "Milford area."⁴⁹ It is significant here that the Milford area and Minisink Island are in the area of the Munsee.

Putnam, reporting upon the Peabody Museum's Abbott collection, from the site near Trenton, New Jersey, stated that "there are several carvings representing human heads."⁵⁰ This, it will be recalled, is the area of the Unami.

The subject of the stone face and its possible connections with both Lenape and Iroquois and the Ohio Valley could be expanded to a paper the length of this con-

⁴⁷ *Ante*, pp. 283-84.

⁴⁸ Photograph from the files of the New Jersey State Museum; George J. Woodruff, Bridgeton, New Jersey, to author, January 28, 1952.

⁴⁹ Leslie Vernon, "A Tentative Catalogue of Minsi

Material," in *Pennsylvania Archaeologist*, XXI, nos. 1 and 2 (January-June, 1951), Plate X, and p. 12.

⁵⁰ Putnam, Frederick W., in Peabody Museum of American Archaeology and Ethnology, *Nineteenth Annual Report* (Cambridge, 1886), p. 493.

sideration. Of one thing there seems no doubt—carved-stone faces occur within the historic domain of the Lenape with sufficient frequency to suggest that they were once an important accessory to religious practices of the folk who made and used them. These folk we believe to be the Lenape. The faces are also found with sufficient frequency in the Ohio Valley to suggest an equal importance there, and the associations of the stone face and other materials equate them in time with Middle Woodland and Hopewell. The possibility of interplay, in this trait as well as others, between Lenape and Iroquois, is also significant. The numerous stone faces which have been found in the Ohio Valley, especially in the state of Ohio, imply the presence of the Lenape on the one hand, and on the other that the "middle reaches of White River" is the Ohio Valley. It perhaps is important to note that, so far as we know, no stone face has been found west of Dearborn County, Indiana, which would suggest that the factors motivating its origin as an accessory to religious practices came into play to the east of this westernmost occurrence. The trait may have been far more common than the stone specimens recovered would imply. These faces in historical times were usually made of wood and no one knows, or ever will know, how many of these faces have become unrecognizable parts of sites in the Ohio Valley by reason of the perishable nature of the material of which they may have been made.

This all-too-laconic argument for a Lenape-Hopewell connection culminates with the suggestion that in the Walam Olum there is a hint of the origin of Hopewell and the possible identity of the people whose material is so designated. There may also be a hint as to the reason for the apparent "flowering" of the culture as well as the origin of many of the traits which at one time equate it with Adena and yet set it apart from materials which would otherwise be called Woodland.

The legend recounts an arrival on the part of the Lenape at a river which is presumed to have been the Mississippi—Book IV, verse 49. A group was already in possession of the East, a people called Talligewi—Book IV, verse 50. East of the Mississippi, and probably in the central Ohio Valley, the only complex which precedes Hopewell and yet is contemporary with it, is Adena. The suggestion is here made, then, that in eastern Indiana and southwestern Ohio the Lenape-Hopewell came into unfriendly contact with the Adena-Talligewi. Subsequently

the Iroquois, the Lenape's "northern friends"—Book IV, verse 54—arrived and apparently combined with the Lenape to drive out the Talligewi, for later it is said that "all the Talega habitations were in the south"—Book IV, verse 59. It certainly is not without interest to note that Webb considers the Adena sites of the Kanawha River Valley to be later than those of Ohio.⁵¹

Another point of interest is in the statement in Book IV, verse 61, that "their Iroquois friends were north of the lakes." Can this have a bearing upon the presence, in southern Ontario, of Ritchie's Point Peninsula-Owasco material which, as has been pointed out, has connections with both Hopewell and Munsee? Also, is it significant that many investigators now see Iroquois origins in Woodland and in materials closely akin to those which are herein thought to be Lenape?

It certainly means something, in the light of the reported Lenape-Talligewi clash, that the only true fortifications known to be on the Hopewell-Adena time level are found in southwestern Ohio-southeastern Indiana. "They certainly were not built for the fun of it." Also, there is meaning certainly, that in this same area the two cultures—Adena and Hopewell—are contemporaneous for a period and that very often, in this same area, mounds have been excavated and produced material of a nature to defy their placement with one culture or the other. This is not so completely true outside of Ohio. As a rule, when it is difficult to make a decision as to which complex is involved, the distinction if any, is found in the basic underlying complex of Hopewell which is Woodland. Adena has a background at variance with Hopewell, which is attested not only by material traits but by physical characteristics as well. The items which make them seem alike are the "high church" traits of Hopewell, these being found in both complexes. Is it possible that these objects are something not natural within Woodland but are rather acquisitions resulting from a successful conquest of Adena people? As a result of this success and the following period of peace in a fertile area, could their religion and society have developed to the extent of raising the great Hopewell centers of Ohio such as Turner, Mound City, Hopewell, Tremper, and Newark, all of which are Hopewell? Is it possible that Adena ancestry lies to the south, as far as Mexico, and that

⁵¹ Webb, William S., and Snow, Charles E., *The Adena People* (University of Kentucky, *Reports in Anthropology and Archaeology*, VI, Lexington, 1945), p. 219.

it brought into the Ohio Valley many items of culture which seem so foreign to the area? Such a suggestion has been made by Webb and Snow,⁵² and Spaulding⁵³ and very rightly so.

We will grant that, for the purpose of this consideration, much of the above should be in the form of positive statements rather than interrogations. At the present time, however, the answers must be held in abeyance. Until the true relation of Hopewell to Woodland, and Hopewell to Adena, and until the relationship of Adena to Copena and perhaps to Marskyville and other like manifestations in the South are determined by archaeological methods, one person's guess as to the answers to the above are as good as another's. That Woodland and Hopewell are related there can be no doubt. The evidence for some connection between Hopewell and Adena is equally convincing. The meaning of these relationships remains to be determined.

This is by no means the first time that a connection between Hopewell and Algonquian has been stated or hinted at. Moorehead,⁵⁴ Willoughby,⁵⁵ and Quimby⁵⁶ have done so, as well as the author of this article,⁵⁷ and each with good reason. It may be the initial attempt to connect Hopewell specifically with Lenape, or to suggest that Hopewell is the material culmination of activity on the part of the Lenape-Iroquois against a common unfriendly people—Adena.

There are many features within Hopewell that imply both Lenape and Iroquois connections. The stone face, mentioned earlier, although not specifically a part of the material trait complex called Hopewell, does have a connection with it, and is almost as common in Iroquois as in Lenape but in a slightly different form. One cannot help but wonder if the ceramic head from a Hopewell mound in Ohio,⁵⁸ or

⁵² Webb and Snow, *The Adena People*, pp. 327-30.

⁵³ Spaulding, Albert C., "The Origin of the Adena Culture." Paper presented at the annual meeting of the Society for American Archaeology, Northwestern University, May, 1951.

⁵⁴ Moorehead, Warren King, *The Hopewell Mound Group of Ohio* (Field Museum of Natural History, Anthropological Series, VI, no. 5, Chicago, 1922), p. 166.

⁵⁵ Willoughby, Charles C., *The Turner Group of Earthworks, Hamilton County, Ohio* (Peabody Museum of American Archaeology and Ethnology, Papers, VIII, no. 3, Cambridge, 1922), p. 96; and Willoughby, Charles C., "Michabo the Great Hare: a Patron of the Hopewell

Mound Settlement," in *American Anthropologist*, N. S. XXXVII, no. 2 (April-June, 1935), pp. 280-86.

⁵⁶ Quimby, George G., "A Subjective Interpretation of Some Design Similarities between Hopewell and Northern Algonkian," in *American Anthropologist*, N. S. XLV, no. 4, pt. 1 (October-December, 1943), pp. 630-33.

⁵⁷ Black, Glenn A., *The Archaeology of Greene County [Indiana]* (*Indiana History Bulletin*, X, no. 5, February, 1933), p. 328.

⁵⁸ This head, now in the Ohio State Archaeological and Historical Society Museum, Columbus, Ohio, was found in Seip Mound Number 1, in 1927, and restored in 1941.

the ceramic "masks" from a Hopewell mound in Wisconsin,⁵⁹ have any connection with those of stone found in the upper Ohio Valley and east of the Alleghenies. The antler headdress, found in several Hopewell mounds, and perhaps in an Adena mound or two, was an item of ceremonial equipment among both Algonquian and Iroquois within historical times. The Woodland material which is basic to Hopewell might well be either Iroquois or Lenape and we see little justification for thinking of Iroquois in culture terms other than Woodland. The few Iroquois traits which do not seem to be "northern" or Woodland, may well have been acquired within recent times or they may conceivably be survivals of an earlier period going back into Hopewell times and culture.

One of the difficulties of aligning any of the complexes of the mound area with anything east of the Alleghenies is the lack of mounds in the latter area. True, there are few mounds, but the trends of the cultures involved in mound construction to the west do continue into the east. There would seem to have been a breakdown of culture from a peak which had been reached in the Ohio Valley before a movement toward the east had been completed. That there was a period of prosperity and good living among the folk who built the mounds of the Ohio Valley is obvious from the character of the mound groups themselves as well as their content. That such a period once existed among the Lenape is suggested in Book V, verses 1 through 8, where such terms as "peace," "much farming," "many people," and "many dwelling places" are mentioned. At this time too, the Talega were in the South. It was also when "true records were kept"—Book V, verse 5. The area involved in these statements we believe to be the central and upper Ohio Valley, and the two hundred or so years which can be allotted to the period should be enough to account for the major mounds of Ohio and for the "rise" and decline of a complex such as Hopewell. Especially is this true if we think of Ohio Hopewell as a high cultural expression grafted upon a lower, but more long-lasting base. If the exotic items were in large part the result of unfriendly but successful contacts with the Adena people, rather than a development culturally within the Hopewell group, would it not be natural for these items to be missing from the over-

⁵⁹Cooper, J. L., *The Red Cedar River Variant of the Wisconsin Hopewell Culture* (*Bulletin of the Public Museum of the City of Milwaukee*, XVI, no. 2, December 20, 1933), Plates 16, 17, and 18.

all complex at a later time period? The retention of the basic traits, and perhaps an occasional object of exotic nature, could account for the Hopewell-like material and Woodland material identical to Hopewell that is found east of the Alleghenies where it was carried by the same folk at a time following the "climax" period of their ancestors in Ohio.

Extensions of Hopewell to the West, as far as Kansas City and beyond, sometimes with very close material relationships to the classic mound sites of the Ohio Valley remain to be explained. It is interesting, however, to dwell upon the possibility of a return western movement of a part of the Lenape out of the "middle reaches of White River," as stated in Book V, verse 12.

Further consideration of archaeological support of the Walam Olum can be limited to a few paragraphs for, with the crossing of the Mississippi, we enter an area of which relatively little is known archaeologically. Theoretically the Lenape entered the upper Missouri Valley from a point to the northwest or north of Montana. Between the Mississippi River and "Snow Mountain"—Book IV, verse 34—thought by this writer to be in Fergus County, Montana, there is a vast area of which, until very recently, almost nothing was known archaeologically. By reason of intensive excavations and surveys now being made in much of the Missouri Basin there will ultimately be a detailed and highly important story of the use of that riverway by many of the peoples ancestral to those who occupied the Ohio Valley. That there is Woodland material in the area is now known, and it is in large measure identical to that which has been, in this consideration, called Algonquian and Lenape. Most of it is thought to be representative of Woodland people—some of whom were Algonquian—who moved into the Plains from the eastern woodlands at a comparatively late date. This supposition is no doubt true in part, but some of this material may be older and be representative of the initial movement toward the east. In passing it should be remarked that Hill and Kivett,⁶⁰ and Champe⁶¹ all indicate that Woodland remains antedate all other known Nebraska pottery-bearing archaeological horizons. The Champe reference has double interest in that it

⁶⁰Hill, A. T., and Kivett, Marvin, "Woodland-like Manifestations in Nebraska," in *Nebraska History*, XXI, no. 2 (July-September, 1940), p. 240.

Stratigraphic Sequences in the Central Great Plains (University of Nebraska Studies, N. S. no. 1, Lincoln, 1946), Figure 17. See also Appendix I, by Harry E. Weakly, pp. 105-10.

⁶¹Champe, John L., *Ash Hollow Cave: A Study of the*

relates to pottery found as a part of a cultural sequence in a stratified cave deposit. Champe's date of A. D. 1000 for this material is derived indirectly from dates obtained by tree-ring studies of material from the site and is, therefore, something better than a mere guess. The cave is located in Ash Hollow, a landmark on the Oregon Trail. Mr. Lilly suggests that the Oregon Trail was a possible route for the Lenape migration eastward from Snow Mountain,⁶² and the speculative date of something between A. D. 800 and 1000⁶³ is close to agreement with Champe's date for the pottery of the cave that is definitely Woodland.

That not all Woodland pottery in the Plains need be late is obvious from the distinct possibility that this type of ceramics had a direct origin in Asia. This has been suggested by McKern⁶⁴ and Vladimir Fewkes.⁶⁵ Whether this origin be true or not, it is certainly evident that identical types are found in Asia⁶⁶ and central and eastern North America, and a recent publication illustrates sherds from Japan which might have been picked up almost any place in the Missouri Basin, the upper Mississippi, Ohio Valley, and eastern historical habitat of the Algonquian.⁶⁷

Nothing can be said archaeologically at this time regarding the possible migration route south into Montana from Bering Strait, and nothing can be added to that mentioned above for a connection with Asia. With the passage of time these matters will be resolved and it will be strange indeed if along waterways such as the Yukon, Mackenzie, and Saskatchewan, material relating to the Algonquian problem will not be found. It does no harm to point out the fact here, that in late prehistoric times much of the area east of western Alberta was occupied by Algonquian-speaking Indians. These were relatives of the Lenape. Some of them had moved into their historical habitat at a late date—others, without much question, had been in the place where they were found historically for a long period of time. We restate the feeling that some of us hold, that the Walam Olum is an account of the migration and breaking up of the Algonquian linguistic family, and only in its later phases does it relate specifically to the Lenape. Groups, it will have been noted, were always

⁶²Ante, p. 280.

⁶³Ante, p. 277.

⁶⁴McKern, William C., "An Hypothesis for the Asiatic Origin of the Woodland Culture Pattern," in *American Antiquity*, III, no. 2 (October, 1937), pp. 138-43.

⁶⁵Fewkes, Vladimir F., "Aboriginal Potsherds from Red River, Manitoba," in *ibid.*, pp. 143-55.

⁶⁶Gaul, James H., "Observations on the Bronze Age in the Yenisei Valley, Siberia," in *Studies in the Anthropology of Oceania and Asia* (Peabody Museum of American Ethnology and Archaeology, *Papers*, XX, Cambridge, 1943), pp. 149-86.

⁶⁷*Paleologica*, I, no. 2 (The Paleological Association of Japan, 1952), p. [179], Plate 1, p. [180], Plate 1.

splitting off and moving east, or west, or south. Some of these may well have stayed in the area where they left the parent group, in which case their language, at least, would be divergent and perhaps their material culture as well. Eventually, when archaeological and linguistic data are more complete, this and other questions will be resolved. Now it is little more than an interesting hypothesis based upon inference.

In the above light, turning our attention again to the Ohio Valley, it is interesting to ponder upon the possibility of many of the Late Woodland manifestations in the area being representative of bands which broke away from the main migration and stayed where they were when the main body moved on. Is it possible that this could account for such complexes as Lewis, or Tampico, or Maples Mills of Illinois, and comparable materials in Indiana? Can it be that the Fort Ancient culture was really left by the Shawnee who "went south" with the Nanticoke and who, before they returned to the Ohio Valley, as we know they did, were partially acculturated through contact with the then flourishing Middle Mississippi people? Can it be that some of the Late Woodland manifestations in the lower Ohio Valley bear exactly the same relationship to "classic" Hopewell that material in the eastern area bears to it? We believe these things to be possible, perhaps even probable, but the answers are not yet available.

So far as the Walam Olum is concerned the faith which some of us had in the document twenty years ago has not diminished. If it had, the tremendous amount of work by many individuals which has gone into this volume would never have been expended. The veracity of the document in all its parts cannot be proved archaeologically, neither can it be disproved. The implications of the document and the inferred verification of these implications in many instances add confidence that the future will not detract from it. We believe that the Walam Olum is basically sound, that it tells at least a part of the story of the Algonquian Indian and of the Lenape in later times, and that the future will exploit more fully the potential than is possible at this time. The research which has gone into this volume has led to immeasurable good in ways only indirectly connected with the undertaking. If it has done nothing more than illustrate that the several disciplines of anthropology can, and should, be focused upon a common historical problem with considerable expectation of success, then the interest sustained through the years has been justified.

A BIBLIOGRAPHY

Abbott, Charles C., *Archaeologia Nova Caesara* (3 volumes in 2. Trenton, 1907-8.)

—, "Occurrence of Mound-Builder's Pipes in New Jersey," in *Science*, II, no. 30 (1883), pp. 258-59.

—, "On the Occurrence of a Stone Mask in New Jersey, U.S.A." in *Nature*, XII (1875), 50-51.

—, *Primitive Industry . . .* (Salem, Mass., 1881).

—, "The Stone Age in New Jersey," in Smithsonian Institution, *Annual Report*, 1877 (Washington, D. C., 1877), pp. 246-389.

—, *Ten Years' Diggings in Lenâpê Land, 1901-1911* (Trenton, 1912).

—, "The Use of Copper by the Delaware," in *The American Naturalist*, XIX (1885), 774-77.

Adams, Robert McCormick, "Archaeological Investigations in Jefferson County, Missouri, 1939-40," in Academy of Science of St. Louis, *Transactions*, XXX, no. 5 (St. Louis, 1941), pp. 151-221.

—, and Walker, Winslow M., "Archaeological Surface Survey of New Madrid County, Missouri," in *The Missouri Archaeologist*, VIII, no. 2 (Columbia, Mo., 1942), pp. 2-23.

Adams, William R., *Archaeological Notes on Posey County* (Indiana Historical Bureau, Indianapolis, 1949).

Andrews, E. B., "Report of Explorations of Mounds in Southwestern Ohio," in Peabody Museum of American Archaeology and Ethnology, Harvard University, *10th Annual Report*, II, no. 1 (Cambridge, 1877), pp. 51-74.

Augustine, Edgar E., "Fort Hill," in *The Pennsylvania Archaeologist*, X, no. 3 (1940), pp. 51-58.

—, "Important Research on Peck and Martz Rock Shelter Site in Somerset County," in *The Pennsylvania Archaeologist*, VIII, no. 4 (1938), pp. 83-88.

—, "Indian Fortifications in Somerset," in *The Pennsylvania Archaeologist*, VIII, no. 2 (1938), pp. 41-45.

—, "Recent Discoveries in Somerset County," in *The Pennsylvania Archaeologist*, VIII, no. 1 (1938), pp. 6-12.

—, "Somerset County Excavations: The Powell Sites," in *The Pennsylvania Archaeologist*, VIII, no. 3 (1938), pp. 60-63.

Babcock, William H., "The Nanticoke Indians of Indian River, Delaware," in *American Anthropologist*, N.S. I, no. 2 (1899), pp. 277-82.

Bache, Charles, and Satterthwaite, Linton, Jr., "Excavation of an Indian Mound at Beach Bottom, West Virginia," in University of Pennsylvania, *Museum Journal*, XXI, nos. 3-4 (1930), pp. 133-[88].

Baerreis, David A., "Some Comments on Trait Lists and the Hopewellian Culture," in *The Wisconsin Archaeologist*, N.S. XXX, no. 4 (Milwaukee, 1949), pp. 65-73.

—, *see also* Bell, Robert E.

Bailey, John H., "An Analysis of Iroquoian Ceramic Types," in *American Antiquity*, III, no. 4 (1938), pp. 333-38.

Baker, Frank C., Griffin, James B., Morgan, Richard G., Neumann, Georg K., and Taylor, Jay L. B., *Contributions to the Archaeology of the Illinois River Valley* (American Philosophical Society, *Transactions*, N.S. XXXII, pt. 1, Philadelphia, November, 1941).

Bayliss, Clara K., "The McEvers Mounds, Pike County, Illinois," in *American Antiquarian*, XXX, no. 2 (Chicago, 1908), pp. 97-101.

Beauchamp, William M., *Moravian Journals Relating to Central New York 1745-66* (Syracuse, 1916).

Bell, Earl H., *Chapters in Nebraska Archaeology* (University of Nebraska, Lincoln, 1936).

Bell, Robert E., and Baerreis, David A., "A Survey of Oklahoma Archaeology," in Texas Archaeological and Paleontological Society, *Bulletin*, XXII (Lubbock, 1951), 7-100.

Bennett, John W., *Archaeological Explorations in Jo Daviess County, Illinois . . .* (University of Chicago Press, 1945).

—, "Archaeological Horizons in Southern Illinois Region," in *American Antiquity*, X, no. 1 (1944), pp. 12-22.

—, "Hopewellian in Minnesota," in *American Antiquity*, IX no. 3 (1944), p. 336.

Black, Glenn A., *Archaeology of Dearborn and Ohio Counties* (Indiana History Bulletin, XI, no. 7, Indianapolis, April, 1934).

—, *Archaeology of Greene County, Indiana* (Indiana History Bulletin, X, no. 5, Indianapolis, February, 1933).

—, *Excavation of the Nowlin Mound* (Indiana History Bulletin, XIII, no. 7, Indianapolis, July, 1936).

—, "Possible Ethnic Relationship of Stone 'Masks' in the Ohio Valley." MS.

Blake, Leonard W., "Survey of a Hopewell-like

Site near St. Louis," in *The Missouri Archaeologist*, VIII, no. 1 (Columbia, 1942), pp. 2-7.

Blaker, Margaret C., "Pottery Types from the Townsend Site, Lewes, Delaware" (Abstract), in Eastern States Archeological Federation, *Bulletin No. 9* (New Haven, 1950), p. 11.

—, "The Status of Ceramic Typology in the Potomac Valley" (Abstract), in Eastern States Archeological Federation, *Bulletin No. 10* (New Haven, 1951), pp. 8-9.

Bliss, Wesley L., "Archaeological Field Activity of the Pennsylvania Historical Commission in 1941—The Sugar Run Mound Cluster," in *The Pennsylvania Archaeologist*, XII, no. 2 (1942), pp. 35-38.

—, "Archeological Reconnaissance in Wyoming and Montana, 1946-47," in *Proceedings of the Fifth Plains Conference for Archeology* (University of Nebraska, Laboratory of Anthropology, *Note Book No. 1*, Lincoln, 1949), pp. 7-12.

Bluhm, Elaine A., "Ceramic Sequence in Central Basin and Hopewell Sites in Central Illinois," in *American Antiquity*, XVI, no. 4 (1951), pp. 324-29.

—, "Woodland Manifestations in the Starved Rock Area," in Illinois State Archaeological Society, *Journal*, VII, no. 2 (1949), pp. 23-24.

Brinton, Daniel G., *A Record of Study in Aboriginal Languages* (Privately printed, Media, Pa., 1898).

Brooks, Seal T., "The Beaver Valley Rock Shelter near Wilmington, Delaware," in Archaeological Society of Delaware, *Bulletin*, IV, no. 3 (1949), pp. 22-24.

Bullen, Ripley P., "Excavations in Northeastern Massachusetts," in Robert S. Peabody Foundation for Archaeology, *Papers*, I, no. 3 (Andover, Mass., 1949), pp. 3-152.

—, "Some Types of Massachusetts Pottery" (Abstract), in Eastern States Archeological Federation, *Bulletin No. 7* (New Haven, 1948), pp. 15-16.

Bushnell, David I., Jr., *Native Cemeteries and Forms of Burial East of the Mississippi River* (U. S. Bureau of American Ethnology, *Bulletin 71*, Washington, D. C., 1920).

Butler, Mary, "Recent Archaeological Work in Southwestern Pennsylvania," in *The Pennsylvania Archaeologist*, VI, no. 3 (1936), pp. 55-58.

—, *Three Archaeological Sites in Somerset County, Pennsylvania* (Pennsylvania Historical Commission, *Bulletin No. 753*, Harrisburg, 1939).

—, "Two Lenape Rock Shelters near Philadelphia," in *American Antiquity*, XII, no. 4 (1947), pp. 246-55.

Cadzow, Donald A., *Archaeological Studies of the Susquehannock Indians of Pennsylvania* (Safe Harbor Report No. 2, Pennsylvania Historical Commission, *Publications*, III, Harrisburg, 1936).

—, "Recent Archaeological Work in Somerset County," in *The Pennsylvania Archaeologist*, V, no. 2 (1935), pp. 35-36.

Calver, W. L., "Aboriginal Remains on Manhattan Island," in *The Archaeologist*, III, nos. 3 and 4 (Columbus, Ohio, 1895), pp. 85-88, 122-25.

Carlson, Gustav G., "The American Indian Collection," in Cincinnati Art Museum, *Bulletin*, X, no. 1 (Cincinnati, 1939), pp. 2-11.

Carpenter, Edmund S., "Additional Notes on the Intermediate Period" (Abstract), in Eastern States Archeological Federation, *Bulletin No. 8* (New Haven, 1949), p. 8.

—, "The Ancient Mounds of Pennsylvania," MS.

—, "Archaeological Reconnaissance in the Upper Allegheny Valley," in *The Pennsylvania Archaeologist*, XII, no. 1 (1942), pp. 20-23.

—, "The Brock Site," in *The Pennsylvania Archaeologist*, XIX, nos. 3-4 (1949), pp. 69-77.

—, "Ecology and Pennsylvania Mounds," in *The Pennsylvania Archaeologist*, XX, nos. 3-4 (1950).

—, "Five Sites of the Intermediate Period," in *American Antiquity*, XV, no. 4, pt. 1 (1950), pp. 298-314.

—, "Iroquoian Figurines," in *American Antiquity*, VIII, no. 1 (1942), pp. 105-13.

—, and Schoff, Harry L., "The Nelson Mound, Crawford County, Pennsylvania," in *The Pennsylvania Archaeologist*, XXI, nos. 3-4 (1951), pp. 57-59.

—, "The Spartansburg Cairns," in *The Pennsylvania Archaeologist*, XX, nos. 1-2 (1950), pp. 40-45.

—, "Tumuli in Southwestern Pennsylvania," in *American Antiquity*, XVI, no. 4 (1951), 329-46.

Case, H. B., "Description of Mounds and Earthworks in Ashland County, Ohio," in Smithsonian Institution, *Annual Report*, 1881 (Washington, D. C., 1883), pp. 593-600.

Champe, John L., *Ash Hollow Cave . . .* (University of Nebraska, *Studies*, N. S. no. 1, Lincoln, 1946).

Chapman, Carl H., "A Preliminary Survey of Missouri Archaeology, Part II, Middle Mississippi and Hopewell Cultures," in *The Missouri Archaeologist*, X, pt. 2 (Columbia, 1947), pp. 60-94.

—, "A Preliminary Survey of Missouri Archaeology. Part III, Woodland Cultures and the Ozark Bluff Dwellers," in *The Missouri Archaeologist*, X, pt. 3 (Columbia, 1948), pp. 98-132.

Clarke, Robert, *The Pre-historic Remains Which Were Found on the Site of the City of Cincinnati, Ohio . . .* (Cincinnati, 1876).

Cole, Fay-Cooper, "Chronology in the Middle West," in *Recent Advances in American Archaeology* (American Philosophical Society, *Proceedings*, LXXXVI, no. 2, Philadelphia, 1943), pp. 299-303.

—, *Kincaid—A Prehistoric Illinois Metropolis* (University of Chicago, Press, 1951).

—, and Deuel, Thorne, *Rediscovering Illinois . . .* (University of Chicago Press, 1939).

Cooper, L. R., *The Red Cedar River Variant of the Wisconsin Hopewell Culture* (Public Museum of the City of Milwaukee, *Bulletin*, XVI, no. 2, 1933).

Corbett, John M., *see* Cotter, John L.

Cotter, John L., and Corbett, John M., *Archeology of the Byrum Mounds, Mississippi* (National Park Service, *Archeological Research Series Number One*, Washington, D. C., 1951).

Cresson, Francis M., Jr., "Village Sites in Southwestern Pennsylvania," in *The Pennsylvania Archaeologist*, XII, no. 1 (1942), pp. 16-20.

Cresson, Hilborne J., "Report upon Pile-Structures in Naamen's Creek, near Claymont, Delaware," in Peabody Museum of American Archaeology and Ethnology, Harvard University, *Papers*, I, no. 4 (Cambridge, 1892), pp. 209-30.

Cross, Dorothy, *The Archaeology of New Jersey, Volume One* (New Jersey State Museum, Trenton, 1941).

—, "The Bevans Rock Shelters," in The Archaeological Society of New Jersey, *Bulletin*, no. 1 (Trenton, 1948), pp. 13-25.

—, "Delaware and Related Horizons in New Jersey," MS (1952).

—, "The Effect of the Abbott Farm on Eastern Chronology," in *Recent Advances in American Archaeology* (American Philosophical Society, *Proceedings*, LXXXVI, no. 2, Philadelphia, 1943), pp. 315-19.

—, *The Indians of New Jersey* (The Archaeological Society of New Jersey, *Leaflet No. 7*, Trenton, 1939).

—, "Mashipacong Island Excavations," in The Archaeological Society of New Jersey, *Bulletin*, no. 3 (Trenton, 1950), pp. 6-9.

Crozier, Archibald, "Archaeological Notes on Claymont, Delaware and Vicinity," in Archaeological Society of Delaware, *Bulletin*, III, no. 3 (1940), pp. 3-6.

—, "Indian Pottery of Delaware," in Archaeological Society of Delaware, *Bulletin*, IV, no. 5 (1949), p. 19.

Cunningham, Wilbur M., and Griffin, James B., *A Study of the Glacial Kame Culture in Michigan, Ohio and Indiana* (Museum of Anthropology, University of Michigan, *Occasional Contributions*, no. 12, Ann Arbor, 1948).

Davidson, D. S., "Burial Customs in the Delmarva Peninsula and the Question of Chronology," in *American Antiquity*, I, no. 2 (1935), pp. 84-97.

d'Harnoncourt, Rene, *see* Douglas, Frederic H.

de Jarnette, David L., *see* Webb, William S.

Deuel, Thorne, "Basic Cultures of the Mississippi Valley," in *American Anthropologist*, N.S. XXXVII, no. 3 (1935), pp. 429-46.

— (ed.), *Hopewellian Communities in Illinois* (Illinois State Museum, *Scientific Papers Vol. V*, Springfield, 1952).

—, "Illinois Records of 1000 A.D.," in *Journal of the Illinois State Historical Society*, XLI, no. 3 (1948), pp. 219-30.

—, *see also* Cole, Fay-Cooper.

De Valinger, Leon, Jr., *Indian Land Sales in Delaware . . .* (Archaeological Society of Delaware, Wilmington, 1941).

Dixon, Roland B., "Some Aspects of North American Archaeology," in *American Anthropologist*, N.S. XV, no. 4 (1913), pp. 549-77.

Douglas, Frederic H., and d'Harnoncourt, Rene, *Indian Art of the United States* (New York, 1941).

Dunlap, A. R., "A Bibliographical Discussion of the Indian Languages of the Delmarva Peninsula," in Archaeological Society of Delaware, *Bulletin*, IV, no. 5 (1949), pp. 2-5.

—, and Weslager, C. A., *Indian Place-Names in Delaware* (Archaeological Society of Delaware, Wilmington, 1950).

Eichenberger, J. Allen, "Investigations of the Marion-Ralls Archaeological Society in Northeast Missouri," in *The Missouri Archaeologist*, no. 19 (Columbia, 1944), pp. 3-69.

Ellis, H. Holmes, *see* Morgan, Richard G.

Engberg, Robert M., "Archaeological Work in Westmoreland and Fayette Counties, 1929," in *Western Pennsylvania Historical Magazine*, XIII, no. 2 (Pittsburgh, 1930), pp. 71-103.

—, "Algonkian Sites of Westmoreland and Fayette Counties, Pennsylvania," in *Western Pennsylvania Historical Magazine*, XIV, no. 3 (Pittsburgh, 1931), pp. 143-84.

Fenton, William N., "Problems Arising from the Historic Northeastern Position of the Iroquois,"

in *Essays in Historical Anthropology of North America* (Smithsonian Institution, *Miscellaneous Collections*, C, Washington, D. C., 1940), pp. 159-253.

—, and Withhoff, John, "Iroquois Anthropology at the Mid-Century," in *American Philosophical Society, Proceedings*, XVC, no. 3, (Philadelphia, 1951), pp. 296-321.

Ferguson, Alice L. L., "An Ossuary near Piscataway Creek," in *American Antiquity*, VI, no. 1 (1940), pp. 4-19.

Ferguson, Henry L., *Archaeological Explorations of Fishers Island, New York* (Museum of the American Indian, Heye Foundation, *Indian Notes and Monographs*, XI, no. 1, New York, 1935).

Fetzer, E. W., and Mayer-Oakes, William J., "Excavation of an Adena Burial Mound at Half-Moon Site," in *West Virginia Archaeologist*, no. 4 (Moundsville, 1951), pp. 1-25.

—, "Report on Adena Site HK 34, near Tomlinson Run, Hancock County," in *West Virginia Archaeologist*, no. 1 (Moundsville, 1949), p. 7.

Fewkes, Vladimir J., "Aboriginal Potsherds from Red River, Manitoba," in *American Antiquity*, III, no. 2 (1937), pp. 143-55.

Flannery, Regina, *An Analysis of Coastal Algonquian Culture* (Catholic University of America, *Anthropological Series*, no. 7, Washington, D. C., 1939).

Ford, James A., *Analysis of Indian Village Site Collections from Louisiana and Mississippi* (Department of Conservation, Louisiana Geological Survey, *Anthropological Study*, no. 2, New Orleans, 1936).

—, *Ceramic Decoration Sequence at an Old Indian Village Site near Sicily Island, Louisiana* (Department of Conservation, Louisiana Geological Survey, *Anthropological Study*, no. 1, New Orleans, 1935).

—, and Willey, Gordon, *Crooks Site, A Marksville Period Burial Mound in La Salle Parish, Louisiana* (Department of Conservation, Louisiana Geological Survey, *Anthropological Study*, no. 3, New Orleans, 1940).

—, and Quimby, George I., Jr., *The Tchefuncte Culture, an Early Occupation of the Lower Mississippi Valley* (Society for American Archaeology, *Memoirs*, no. 2, Menasha, Wis., 1945).

—, *Greenhouse: A Troyville-Coles Creek Period Site in Avoyelles Parish, Louisiana* (American Museum of Natural History, *Anthropological Papers*, XLIV, pt. 1, New York, 1951).

—, *see also* Phillips, Philip.

Fowke, Gerard, "Aboriginal Remains of the Piedmont and Valley Region of Virginia," in *American Anthropologist*, O.S. VI (Washington, D. C., 1893), pp. 415-22.

—, *Antiquities of Central and Southeastern Missouri* (U.S. Bureau of American Ethnology, *Bulletin* 37, Washington, D. C., 1910).

—, *Archaeological History of Ohio . . .* (Columbus, 1902).

—, *Archaeological Investigations in James and Potomac Valleys* (U. S. Bureau of American Ethnology, *Bulletin* 23, Washington, D. C., 1894).

—, "Archaeological Investigations—II," in U. S. Bureau of American Ethnology, *Annual Report*, 1926-27 (Washington, D. C., 1928), pp. 405-540.

—, "Explorations along the Missouri River Bluffs in Kansas and Nebraska," in *Archeological Investigations* (U. S. Bureau of American Ethnology, *Bulletin* 76, Washington, D. C., 1922), pp. 151-60.

—, *The Montezuma Mounds . . .* (Missouri Historical Society, *Collections*, II, no. 5, St. Louis, 1905).

—, "Some Interesting Mounds," in *American Anthropologist*, V, no. 1 (1892), pp. 73-82.

—, "Stone Graves in Brown County, Ohio," in *Ohio Archaeological and Historical Quarterly*, IX (1904), 193-204.

Fowler, Melvin L., "The Clear Lake Site: Hopewellian Occupation," in *Hopewellian Communities in Illinois*, edited by Thorne Deuel (Illinois State Museum, *Scientific Papers Vol. V*, Springfield, 1952), pp. 132-74.

—, *see also* Georg K. Neumann.

Gaul, James H., "Observations on the Bronze Age in Yenisei Valley, Siberia," in *Studies in Anthropology of Oceania and Asia* (Peabody Museum of American Ethnology and Archaeology, Harvard University, *Papers*, XX, Cambridge, 1943), pp. 149-86.

Goggin, John M., *see Rouse, Irving*.

Graham, William J., *The Indians of Port Tobacco River, Maryland, and Their Burial Places* (Privately printed, Washington, D. C., 1935).

Greenman, Emerson F., "Cultural Relationships of Archaeological Sites in the Upper Great Lakes Region," in Michigan Academy of Science, Arts, and Letters, *Papers*, XXIV, pt. 4 (Ann Arbor, 1939), pp. 1-10.

—, "Excavation of the Coon Mound and an Analysis of the Adena Culture," in *Ohio Archaeological and Historical Quarterly*, XLI, no. 3 (1932), pp. 367-523.

—, "The Hopewellian in the Detroit-Windsor Area," in Michigan Academy of Science, Arts,

and Letters, *Papers*, XXX (Ann Arbor, 1945), pp. 457-64.

—, "Michigan Mounds, with Special Reference to Two in Missaukee County," in Michigan Academy of Science, Arts, and Letters, *Papers*, VII (Ann Arbor, 1927), 1-9.

—, "Hopewellian Traits in Florida," in *American Antiquity*, III, no. 4 (1938), pp. 327-32.

—, "The Reeve Village Site, Lake County, Ohio," in *Ohio Archaeological and Historical Quarterly*, XLIV, no. 1 (1935), pp. 2-64.

—, "Seven Prehistoric Sites in Northern Ohio," in *Ohio Archaeological and Historical Quarterly*, XLIV (1935), pp. 230-37.

—, "Two Prehistoric Villages near Cleveland, Ohio," in *Ohio Archaeological and Historical Quarterly*, XLVI, no. 4 (1937), pp. 305-64.

—, *The Wolf and Furton Sites, Macomb County, Michigan* (University of Michigan, Museum of Anthropology, *Occasional Contributions*, no. 8, Ann Arbor, 1938).

—, *The Younge Site . . .* (University of Michigan, Museum of Anthropology, *Occasional Contributions*, no. 6, Ann Arbor, 1937).

—, *see also Shetrone, Henry C.*

Griffin, James B., *Additional Hopewell Material from Illinois* (Indiana Historical Society, *Prehistory Research Series*, II, no. 3, Indianapolis, 1941).

—, "Adena Pottery," in *American Antiquity*, VII, no. 4 (1942), pp. 344-58.

—, "The Box Elder Mound in La Salle County, Illinois," in *American Antiquity*, XI, no. 1 (1945), pp. 47-48.

—, "The Ceramic Affiliations of the Ohio Valley Adena Culture," in Webb, William S., and Snow, Charles E., *The Adena People* (University of Kentucky, *Reports in Anthropology and Archaeology*, VI, Lexington, 1945), pp. 220-46.

—, "The Chronological Position and Ethnological Relationships of the Fort Ancient Aspect," in *American Antiquity*, II, no. 4 (1937), pp. 273-76.

—, "Cultural Change and Continuity in Eastern United States Archaeology," in *Man in Northeastern North America*, edited by Frederick Johnson (Robert S. Peabody Foundation for Archaeology, *Papers*, III, Andover, Mass., 1946), pp. 37-95.

—, *The Fort Ancient Aspect, Its Cultural and Chronological Position in Mississippi Valley Archaeology* (University of Michigan Press, Ann Arbor, 1943).

—, "Iroquois in American Prehistory," in Mich-igan Academy of Science, Arts, and Letters, *Papers*, XXIX (Ann Arbor, 1944), pp. 357-73.

—, and Krieger, Alex D., "Notes on Some Ceramic Techniques and Intrusions in Central Mexico," in *American Antiquity*, XII, no. 3, pt. 1 (1947), pp. 156-68.

—, (ed.), Report of Richard S. MacNeish on Interpretation of Delaware Prehistory. MS.

—, "Report on Pottery from the St. Louis Area," in *The Missouri Archaeologist*, VII, no. 2 (Columbia, 1941), pp. 1-17.

—, "The Spruce Run Earthworks: A Forgotten Adena Site in Delaware County, Ohio," in *Ohio Archaeological and Historical Quarterly*, LVI, no. 2 (1947), pp. 188-200.

—, "Some Early and Middle Woodland Pottery Types in Illinois," in *Hopewellian Communities in Illinois*, edited by Thorne Deuel (Illinois State Museum, *Scientific Papers Vol. V*, Springfield, 1952), pp. 94-129.

—, *see also Baker, Frank Collins; Cunningham, Wilbur M.; Manson, Carl; Phillips, Philip.*

Guthrie, Alfred K., "The Williams Mound, A Manifestation of the Hopewellian Culture" (Abstract), in Eastern States Archeological Federation, *Bulletin No. 10* (New Haven, 1951), pp. 4-5.

Haag, William G., *see Webb, William S.*

Hall, Robert Leonard, "A Style Analysis of Wisconsin Woodland Pottery," in *Wisconsin Archeologist*, N.S. XXXI, no. 1 (Milwaukee, 1950), pp. 3-42.

Harper, Victoria G., "A Ceramic Study of the Rivière au Vase Site," in Michigan Academy of Science, Arts, and Letters, *Papers*, XXX (1945), pp. 479-91.

Harrington, Mark Raymond, "An Ancient Village Site of the Shinnecock Indians," in American Museum of Natural History, *Anthropological Papers*, XXII, pt. 5 (New York, 1924), pp. 227-83.

—, *Cherokee and Earlier Remains on Upper Tennessee River* (Museum of the American Indian, Heye Foundation, *Indian Notes and Monographs*, no. 24, New York, 1922).

—, "A Preliminary Sketch of Lenape Culture," in *American Anthropologist*, N.S. XV, no. 2 (1913), pp. 208-35.

—, *Religion and Ceremonies of the Lenape* (Museum of the American Indian, Heye Foundation, *Indian Notes and Monographs*, no. 19, New York, 1921).

—, "Vestiges of Material Culture among the Canadian Delaware," in *American Anthropologist*, N.S. X, no. 3 (1908), pp. 408-18.

Hawkes, Ernest W., and Linton, Ralph, *A Pre-Lenape Site in New Jersey* (University of Pennsylvania Museum, *Anthropological Publications*, VI, no. 3, Philadelphia, 1916).

Hayden, Harry, "Tumuli Burials along Cheat River," in *The Pennsylvania Archaeologist*, XI, no. 1 (1941), pp. 5-7.

Heckewelder, John, *A Narrative of the Mission of the United Brethren among the Delaware and Mohegan Indians . . .*, edited by William Elsey Connelley (Cleveland, Ohio, 1907).

Heye, George G., and Pepper, George H., *Exploration of a Munsee Cemetery near Montague, New Jersey* (Museum of the American Indian, Heye Foundation, *Contributions*, II, no. 1, New York, 1915).

Hill, A. T., and Kivett, Marvin F., "Woodland-like Manifestations in Nebraska," in *Nebraska History*, XXI, no. 3 (Lincoln, 1940), pp. 138-243.

Hinsdale, Wilbert B., "Indian Mounds, West Twin Lake, Montmorency County, Michigan," in *Michigan Academy of Science, Arts, and Letters, Papers*, X (Ann Arbor, 1929), 91-101.

—, "Reports of Archaeological Field Work in the Summer of 1928 in Montmorency, Newago and Lake Counties, Michigan," in *Michigan Academy of Science, Arts, and Letters, Papers*, XII (1930), 127-35.

Hodge, Frederick Webb (ed.), *Handbook of American Indians North of Mexico* (U. S. Bureau of American Ethnology, *Bulletin* 30, 2 parts. Washington, D. C., 1907, 1910).

Hoerler, Alice, *Selected Pottery from the Excavations of the Indian Site Survey of New Jersey* (The Archaeological Society of New Jersey, *Leaflet No. 6*, Trenton, 1939).

Holmes, William H., "Aboriginal Pottery of the Eastern United States," in U. S. Bureau of American Ethnology, *Annual Report*, 1898-99 (Washington, D. C., 1903), pp. 1-237.

—, "Aboriginal Shell-Heaps of the Middle Atlantic Tidewater Region," in *American Anthropologist*, N.S. IX, no. 1 (1907), pp. 113-28.

—, "Ancient Pottery of the Mississippi Valley," in *Davenport Academy of Sciences, Proceedings*, IV (1886), 123-96.

Hooton, Earnest A., and Willoughby, Charles C., *Indian Village Site and Cemetery near Madisonville, Ohio* (Peabody Museum of American Archaeology and Ethnology, Harvard University, *Papers*, VIII, no. 1, Cambridge, 1920).

—, *see also* Willoughby, Charles C.

Hrdlička, Aleš, *Physical Anthropology of the Lenape or Delawares, and of the Eastern Indians in General* (U. S. Bureau of American Ethnology, *Bulletin* 62, Washington, D. C., 1916).

Hughes, Jack T., "Investigations in Western South Dakota and Northeastern Wyoming," in *American Antiquity*, XIV, no. 4 (1949), pp. 266-77.

Hurt, Wesley R., Jr., *Report of the Investigation of the Scalp Creek Site 39 GR 1 and the Ellis Creek Site 39 GR 2, Gregory, South Dakota, 1941, 1951* (South Dakota Archaeological Commission, *Archaeological Studies*, Circular no. 4, Pierre, 1952).

Jennings, Jesse D., "Hopewell-Copena Sites near Nashville," in *American Antiquity*, XII, no. 2 (1946), p. 126.

Johnson, Frederick (ed.), *Man in Northeastern North America* (Robert S. Peabody Foundation for Archaeology, *Papers*, III, Andover, Mass., 1946).

—, "Problems Surrounding the Classification of Certain Culture Complexes in New England," in *American Antiquity*, III, no. 2 (1937), pp. 161-65.

— (ed.), *Radiocarbon Dating (Memoirs of the Society for American Archaeology*, no. 8, supplement to *American Antiquity*, XVII, no. 1, pt. 2, Salt Lake City, July, 1951).

Jordan, Francis, "Aboriginal Village Sites of New Jersey, Delaware and Maryland," in *The Archaeologist*, III, nos. 3 and 4 (Columbus, 1895), pp. 99-100, 137-39.

Keyes, Charles R., "Prehistoric Man in Iowa," in *The Palimpsest*, III, no. 6 (Iowa City, 1927), pp. 185-229.

Kidd, Kenneth E., "A Prehistoric Camp Site at Rock Lake, Algonquin Park, Ontario," in *Southwestern Journal of Anthropology*, IV, no. 4 (Albuquerque, 1948), pp. 98-106.

Kier, Charles F., Jr., "Cohansey Quartzite and the Riggins Farm Site," in *The Archaeological Society of New Jersey, Bulletin*, no. 2 (Trenton, 1949), pp. 1-7.

Kinietz, Vernon W., *Delaware Culture Chronology* (Indiana Historical Society, *Prehistory Research Series*, III, no. 1, Indianapolis, 1946).

—, *The Indians of the Western Great Lakes, 1615-1760* (University of Michigan, Museum of Anthropology, *Occasional Contributions*, no. 10, Ann Arbor, 1940).

Kivett, Marvin F., "Archaeological Investigations in Medicine Creek Reservoir, Nebraska," in *American Antiquity*, XIV, no. 4 (1949), pp. 278-84.

—, "A Woodland Pottery Type from Nebraska," in *Proceedings of the Fifth Plains Conference for Archeology* (University of Nebraska, Laboratory

of Anthropology, *Note Book No. 1*, Lincoln, 1949), pp. 67-69.

—, *Woodland Sites in Nebraska* (Nebraska State Historical Society, *Publications in Anthropology*, no. 1, Lincoln, 1952).

—, *see also* Hill, A. T.

Kneberg, Madeline, *see* Lewis, Thomas M. N.

Knowles, Nathaniel, "Cultural Stratification on the Trenton Bluff," in *American Anthropologist*, N.S. XLIII, no. 4, pt. 1 (1941), pp. 610-16.

—, "Geographical Differentiation of New Jersey Archaeological Material Inferred from Private Collections," in *American Antiquity*, VII, no. 4 (1942), pp. 369-75.

—, "New Light on the Stratigraphy of Abbott Farm," in Archaeological Society of New Jersey, News Letter, no. 1 (Trenton, 1940), pp. 6-7.

Krieger, Alex D., "The Eastward Extension of Puebloan Datings toward Cultures of the Mississippi Valley," in *American Antiquity*, XII, no. 3, pt. 1 (1947), pp. 141-48.

—, *see also* Griffin, James B.

Landis, H. K., "The Dr. Stewart Collection at Lock Haven, Pa.," in *The Pennsylvania Archaeologist*, VI, no. 2 (1936), pp. 38-39.

Laubach, Charles, "Notes on a Number of Delaware River Indian Village Sites," in *The Antiquarian*, I (Columbus, Ohio, 1897), pt. 8, pp. 217-19; pt. 10, pp. 268-69; pt. 11, pp. 288-89; pt. 12, pp. 317-18.

—, "Notes on a Number of Delaware River Indian Village Sites," in *American Archaeologist*, II (Columbus, Ohio, 1898), pt. 2, pp. 41-42; pt. 3, pp. 69-71; pt. 4, pp. 99-100; pt. 6, pp. 143-45; pt. 7, pp. 184-86; pt. 10, pp. 264-65; pt. 11, pp. 295-97; pt. 12, pp. 317-19.

Leslie, Vernon, "An Archaeological Reconnaissance of Upper Delaware Valley Sites between Point Mountain and Bushkill, Pa.," in *The Pennsylvania Archaeologist*, XVI (Harrisburg, 1946), no. 1, pp. 20-30; no. 2, pp. 59-78; no. 3, pp. 95-112; no. 4, pp. 131-41.

—, "A Tentative Catalogue of Minsi Material Culture," in *The Pennsylvania Archaeologist*, XXI, nos. 1-2 (Honesdale, Pa., 1951), pp. 9-20.

Lewis, Thomas M. N., and Kneberg, Madeline, *The Archaic Horizon in Western Tennessee* (University of Tennessee Record, Extension Series, XXIII, no. 4, Knoxville, 1947).

—, and Kneberg, Madeline, *Hiwassee Island...* (University of Tennessee Press, Knoxville, 1946).

—, "Late Horizons in the Southeast," in *Recent Advances in American Archaeology* (American Philosophical Society, *Proceedings*, LXXXVI, no. 2, Philadelphia, 1943), pp. 304-13.

—, and Kneberg, Madeline, *The Prehistory of the Chockamauga Basin in Tennessee* (University of Tennessee, *Anthropology Papers*, no. 1, Knoxville, 1941).

—, "Trait Complexes of Cultural Manifestations in East Tennessee" (Mimeographed. University of Tennessee, Laboratory of Anthropology, Knoxville, 1941).

Lilly, Eli, *Prehistoric Antiquities of Indiana* (Indiana Historical Society, Indianapolis, 1937).

—, "Tentative Speculations on the Chronology of the Walam Olum and the Migration Route of the Lenape," in *Proceedings of the Indiana Academy of Science*, 1944, LIV (1945), pp. 33-40.

Linton, Ralph, *see* Hawkes, E. W.

McAdams, William, "Exploration of Apparent Recent Mounds in Dacotah," in *American Antiquarian*, VIII, no. 3 (Chicago, 1886), pp. 156-58.

McAllister, J. Gilbert, *The Archaeology of Porter County* (Indiana History Bulletin, X, no. 1, Indianapolis, October, 1932).

McCann, Catherine J., "Excavation at Some Late Sites in New Jersey," MS (1950).

—, "Some Contact Sites in Southern New Jersey" (Abstract), in Eastern States Archeological Federation, *Bulletin No. 8* (New Haven, 1949), p. 8.

—, "A Tentative Pottery Sequence in Southern New Jersey" (Abstract), in Eastern States Archeological Federation, *Bulletin No. 7* (New Haven, 1948), pp. 18-19.

—, "The Ware Site, Salem County, New Jersey," in *American Antiquity*, XV, no. 4, pt. 1 (1950), pp. 315-21.

McCord, Howard, *see* Manson, Carl.

McDermott, John Francis (ed.), *Journal of an Expedition to the Mauaises Terres and Upper Missouri in 1850 by Thaddeus A. Culbertson* (U. S. Bureau of American Ethnology, *Bulletin* 47, Washington, D. C., 1952).

McGregor, John C., "The Havana Site," in *Hopewellian Communities in Illinois*, edited by Thorne Deuel (Illinois State Museum, *Scientific Papers Vol. V*, Springfield, 1952), pp. 43-91.

McKern, Will C., "A Cultural Perspective of Northeastern Area Archaeology," in *Man in Northeastern North America*, edited by Frederick Johnson (Robert S. Peabody Foundation for Archaeology, *Papers*, III, Andover, Mass., 1946), pp. 33-36.

—, "An Hypothesis for the Asiatic Origin of the Woodland Culture Pattern," in *American Antiquity*, III, no. 2 (1937), pp. 138-43.

—, *The Kletzean and Nitschke Mound Groups* (Public Museum of the City of Milwaukee, *Bulletin*, III, no. 4, June, 1930).

—, "The Midwestern Taxonomic Method as an Aid to Archaeological Culture Study," in *American Antiquity*, IV, no. 4 (1939), pp. 301-13.

—, and Ritzenthaler, Robert E., "Trait List of the Effigy Mound Aspect," in *Wisconsin Archaeologist*, NS. XXX, no. 2 (Milwaukee, 1949), pp. 39-48.

—, and Ritzenthaler, Robert E., "Trait List of the Prehistoric Wisconsin Cultures," in *Wisconsin Archaeologist*, N.S. XVI, no. 4 (Milwaukee, 1945), pp. 66-79.

—, "Wisconsin Pottery," in *American Anthropologist*, N. S. XXXIII, no. 3 (1931), pp. 383-89.

MacLean, J. P., *The Archaeological Collection of the Western Reserve Historical Society* (Western Reserve Historical Society, *Tract No. 90*, Cleveland, 1901).

MacLeod, William C., "The Family Hunting Territory and Lenape Political Organization," in *American Anthropologist*, N.S. XXIV, no. 4 (1922), pp. 448-63.

MacNeish, Richard S., "The Archaeology of the Eastern United States." MS.

—, "The Pre-Pottery Faulkner Site of Southern Illinois," in *American Antiquity*, XIII, no. 3 (1948), pp. 232-43.

—, *see also* Ritchie, William A.

McPherson, H. R., "The Lee Mound—An Account of Its Exploration," in *Ohio Archaeologist*, N.S. I, no. 3 (Columbus, Ohio, 1951), pp. 17-23.

Manson, Carl, MacCord, Howard, and Griffin, James B., "The Culture of the Keyser Farm Site," in *Michigan Academy of Science, Arts, and Letters, Papers*, XXIX (Ann Arbor, 1944), 375-418.

Martin, Edward L., "Indian Remains in Grundy County, Missouri," in *The Missouri Archaeologist*, XI, no. 2 (Columbia, 1949), pp. 3-25.

Mason, Otis, T., "The Aboriginals of the District of Columbia and the Lower Potomac . . .," in *American Anthropologist*, O.S. II, no. 3 (Washington, D. C., 1889), pp. 225-68.

Marye, William B., "Burial Methods in Maryland and Adjacent States," in *American Antiquity*, II, no. 3 (1937), pp. 209-14.

—, "Former Indian Site in Maryland as Located by Early Colonial Records," in *American Antiquity*, II, no. 1 (1936), pp. 40-46.

—, "Indian Towns of the Southeastern Part of Sussex County," in *Archaeological Society of Delaware, Bulletin*, III, no. 2 (1939), pp. 18-25; III, no. 3 (1940), pp. 21-28.

Maxwell, Moreau S., "The Succession of Woodland Horizons in the Carbondale Area," in *Illinois Academy of Science, Transactions*, XL (1947), 30-35.

—, "A Summary of Illinois Archaeology," in *Wisconsin Archaeologist*, N.S. XXVIII, no. 2 (Milwaukee, Wis., 1947), pp. 19-33.

—, *The Woodland Cultures in Southern Illinois* (Logan Museum Publications in Anthropology, *Bulletin*, no. 7, Beloit, Wis., 1951).

Mayer-Oakes, William J., "Two Hopewell Shards from Beech Bottom, West Virginia," in *West Virginia Archaeologist*, no. 5 (Moundsville, 1952), pp. 11-14.

Mayer-Oakes, William J., *see also* Fetzer, E. W.

Mercer, Henry C., "Cave Explorations in the Eastern United States in 1894," in *American Antiquarian*, XVIII, no. 2 (Goodhope, Ill., 1896), pp. 82-86.

Metz, Charles L., "The Prehistoric Monuments of Anderson Township, Hamilton County, Ohio," in *Cincinnati Society of Natural History, Journal*, IV, no. 4 (Cincinnati, 1881), pp. 293-305.

—, "The Prehistoric Monuments of the Little Miami Valley," in *Cincinnati Society of Natural History, Journal*, I, no. 3 (Cincinnati, 1878), pp. 119-28.

Mills, William C., "Excavations of the Adena Mound," in *Ohio Archaeological and Historical Quarterly*, X, no. 4 (1902), pp. 452-79.

—, "Explorations of the Edwin Harness Mound," in *Ohio Archaeological and Historical Quarterly*, XVI, no. 2 (1907), pp. 113-93.

—, "Exploration of the Mound City Group," in *Ohio Archaeological and Historical Quarterly*, XXXI, no. 4 (1922), pp. 423-584.

—, "Explorations of the Seip Mound," in *Ohio Archaeological and Historical Quarterly*, XVIII (1909), 269-321.

—, "Exploration of the Tremper Mound," in *Ohio Archaeological and Historical Quarterly*, XXV, no. 3 (1916), 263-97.

—, "Explorations of the Westenhaver Mound," in *Ohio Archaeological and Historical Quarterly*, XXVI (1917), 226-66.

Mohrman, Harold W., "A Small Hopewell Mound in Adams County, Illinois," in *The Missouri Archaeologist*, XI, no. 2 (Columbia, 1949), pp. 28-31.

Mooney, James, "Indian Tribes of the District of Columbia," in *American Anthropologist*, O.S. II, no. 3 (Washington, D. C., 1889), pp. 259-66.

—, "The Powhatan Indians," in *American Anthropologist*, O.S. III, no. 2 (Washington, D. C., 1890), p. 132.

Moorehead, Warren K., "Exploration of the Porter Mound, Frankfort, Ross County, Ohio," in Cincinnati Society of Natural History, *Journal*, XII, no. 1 (Cincinnati, 1889), pp. 27-30.

—, *Fort Ancient, the Great Prehistoric Earthwork of Warren County, Ohio* . . . (R. Clark & Co., Cincinnati, 1890).

—, "The Hopewell Group," in *The Antiquarian*, I (Columbus, Ohio, 1897), pt. 5, pp. 113-20; pt. 6, pp. 153-58; pt. 7, pp. 178-84; pt. 8, pp. 208-14; pt. 9, pp. 236-44; pt. 10, pp. 254-64; pt. 11, pp. 291-95; pt. 12, pp. 312-16.

—, "The Hopewell Group," in *The American Archaeologist*, II, pt. 1 (Columbus, Ohio, 1898), pp. 6-11.

—, *The Hopewell Mound Group of Ohio* (Field Museum of Natural History, *Anthropology Series*, VI, no. 5, Chicago, 1922).

—, *Primitive Man in Ohio* (New York, 1892).

—, "Report of Field Work Carried on in the Muskingum, Scioto and Ohio Valleys during the Season of 1896 . . .," in *Ohio Archaeological Historical Society Quarterly*, V (1897), 165-274.

— (comp. and ed.), *A Report of the Susquehanna River Expedition* . . . (Andover Press, Andover, Mass., 1938).

Morgan, Richard G., "A Hopewell Sculptured Head," in *Ohio Archaeological and Historical Quarterly*, L (1941), 384-87.

—, and Ellis, H. Holmes, "The Fairport Harbor Village Site," in *Ohio Archaeological and Historical Quarterly*, LII, no. 1 (Columbus, 1943), pp. 1-62.

—, *see also* Baker, Frank Collins.

Mott, Mildred, "The Relation of Historic Indian Tribes to Archaeological Manifestations in Iowa," in *Iowa Journal of History and Politics*, XXXVI, no. 3 (Iowa City, 1938), pp. 227-314.

Mulloy, William, *The Hagen Site; A Prehistoric Village on the Lower Yellowstone* . . . (University of Montana, *Publications in the Social Sciences*, no. 1, Missoula, 1942).

Murdock, George P., *Ethnographic Bibliography of North America* (*Yale Anthropological Studies*, I, New Haven, 1941).

Murray, Elsie, "Stone Tubes in Bradford County, Pennsylvania: An Enigma," in *The Pennsylvania Archaeologist*, XV, no. 1 (Harrisburg, 1945), pp. 10-24.

Neff, Peter, "A Stone Mask Found in Ohio," in *American Antiquarian*, IV, no. 3 (Chicago, 1882), pp. 230-31.

Neumann, Georg K., "Crania from the Porter Mound, Ross County, Ohio," in *Michigan Academy of Science, Arts, and Letters, Papers*, XXVI (1941), 479-88.

—, "Migrations and the Origin of the Woodland Culture," in *Proceedings of the Indiana Academy of Science*, 1944, LIV (1945), 41-43.

—, and Fowler, Marvin L., "Hopewellian Sites in the Lower Wabash Valley," in *Hopewellian Communities in Illinois*, edited by Thorne Deuel (Illinois State Museum, *Scientific Papers Vol. V*, Springfield, 1952), pp. 176-248.

—, *see also* Baker, Frank Collins.

Nichols, John B., *Notes on Rock Crevice Burials in Jefferson County at Point Peninsula* (New York State Archeological Association, Lewis H. Morgan Chapter, *Researches and Transactions*, V, no. 4, Rochester, 1928).

Omawake, H. Geiger, "Indian Burials in Delaware," in *Archaeological Society of Delaware, Bulletin*, III, no. 1 (1939), pp. 19-24.

—, "Recent Finds of Delaware Pottery," in *National Archaeological News*, I, no. 10 (Lancaster, 1937), pp. 7-10.

—, "The Townsend Site," MS (1950).

Orchard, F. P., "A Matinecoc Site on Long Island," in *Museum of the American Indian, Heye Foundation, Indian Notes and Monographs*, V, no. 2 (New York, 1928), pp. 217-31.

Parker, Arthur C., *The Archaeological History of New York* (*New York State Museum Bulletin*, nos. 235, 236 and 237; 238, Albany, 1920).

—, "The Mound Builder Culture in New York," in *New York State Museum Bulletin*, nos. 219, 220 (Albany, 1919), pp. 283-92.

—, "The Nanticoke," in *The Pennsylvania Archaeologist*, V, no. 4 (1936), pp. 83-90; VI (1936), no. 1, pp. 3-12.

—, "The Origin of the Iroquois as Suggested by Their Archaeology," in *American Anthropologist*, N.S. XVIII, no. 4 (1916), pp. 479-507.

—, "Outline of the Algonkian Occupation of New York," in *The Algonkian Occupation of New York* (New York State Archeological Association, Lewis H. Morgan Chapter, *Researches and Transactions*, IV, no. 2, Rochester, 1923), pp. 49-80.

—, "Problems of the Delaware-Susquehanna

Area," in *The Pennsylvania Archaeologist*, III, no. 5 (Harrisburg, 1933), pp. 7-11.

Peithman, Irwin, "Evidences of Early Woodland Culture at Chalk Bluff Rock Shelter," in *American Antiquity*, IV, no. 3 (1939), pp. 268-72.

Pepper, George H., *see* Heye, George G.

Philhower, Charles A., *The Human Face in Lenape Archaeology* (Archaeological Society of New Jersey, Leaflet No. 2, Trenton, 1933).

—, *Indian Pipes and the Use of Tobacco in New Jersey* (Archaeological Society of New Jersey, Leaflet No. 3, Trenton, 1934).

Phillips, Philip, with Ford, James A., and Griffin, James B., *Archaeological Survey in the Lower Mississippi Alluvial Valley* (Peabody Museum of American Archaeology and Ethnology, Harvard University, *Papers*, XXV, Cambridge, 1951).

—, "Middle American Influences on the Archaeology of the Southeastern United States," in *The Maya and Their Neighbors* (New York, 1940), pp. 349-67.

Putnam, Frederick W., "Symbolic Carvings of the Mound Builders," in *American Antiquarian*, XVIII, no. 1 (Goodhope, Ill., 1896), pp. 55-58.

—, and Willoughby, Charles C., "Symbolic Carvings of the Mound Builders as Found at the Hopewell Group, Ross County, Ohio," in *Popular Science News*, January, 1896, p. 13.

Quick, Edgar R., "Stone Mounds of the White-water," in Brookville Society of Natural History, *Bulletin*, no. 1 (Richmond, Ind., 1885), pp. 3-5.

Quimby, George I., Jr., "The Ceramic Sequence within the Goodall Focus," in Michigan Academy of Science, Arts, and Letters, *Papers*, XXVIII (1943), 543-48.

—, *The Goodall Focus* (Indiana Historical Society, *Prehistory Research Series*, II, no. 2, Indianapolis, 1941).

—, "Hopewellian Pottery Types in Michigan," in Michigan Academy of Science, Arts, and Letters, *Papers*, XXVI (1941), 489-95.

—, "Some New Data on the Goodall Focus," in Michigan Academy of Science, Arts, and Letters, *Papers*, XXIX (1944), 419-23.

—, "A Subjective Interpretation of Some Design Similarities between Hopewell and Northern Algonkian," in *American Anthropologist*, N.S. XLV, no. 4, pt. 1 (1943), pp. 630-33.

—, *see also* Ford, James A.

Reichel, William C., *Names Which the Lenni Lenape or Delaware Indians Gave to Rivers, Streams and Localities, within the States of Pennsylvania, New Jersey, Maryland and Virginia*, prepared from a MS by John Heckewelder (*Transactions of the Moravian Historical Society*, I, Nazareth, Pa., 1872).

Rights, Douglas L., *The American Indian in North Carolina* (Duke University Press, Durham, N. C., 1947).

Ritchie, William A., "The Algonkin Sequence in New York," in *American Anthropologist*, N.S. XXXIV, no. 3 (1932), pp. 406-44.

—, *An Algonkin-Iroquois Site on Castle Creek, Broome County, N. Y.* (*Research Records of the Rochester Museum of Arts and Sciences* No. 2, Rochester, 1934).

—, *An Algonkian Village Site near Levanna, N. Y.* (*Research Records of the Rochester Municipal Museum* No. 1, Rochester, 1928).

—, *Archaeological Evidence for Ceremonialism in the Owasco Culture* (New York State Archeological Association, Lewis H. Morgan Chapter, *Researches and Transactions*, XI, no. 2, Rochester, 1947).

—, *An Archaeological Survey of the Trent Waterway in Ontario, Canada . . .* (New York State Archeological Association, Lewis H. Morgan Chapter, *Researches and Transactions*, XII, no. 1, Rochester, 1949).

—, "Archaeological Explorations in Canada," in Rochester Museum of Arts and Sciences, *Museum Service*, XXII, no. 4 (Rochester, 1949), pp. 42-43.

—, *The Bell-Philhower Site, Sussex County, New Jersey* (Indiana Historical Society, *Prehistory Research Series*, III, no. 2, Indianapolis, 1949).

—, "Ceramic Types of the Owasco Culture" (Abstract), in Eastern States Archeological Federation, *Bulletin* No. 7 (1948), p. 19.

—, *Certain Recently Explored New York Mounds and their Probable Relation to the Hopewell Culture* (*Research Records of the Rochester Museum of Arts and Sciences* No. 4, Rochester, 1938).

—, "Culture Influences from Ohio in New York Archaeology," in *American Antiquity*, II, no. 3 (1937), pp. 182-94.

—, "The Culture Sequence in New York," in Rochester Museum of Arts and Sciences, *Museum Service*, X, no. 5 (Rochester, May, 1937), pp. 106-7.

—, *Indian History of New York State Part I, Pre-Iroquoian Cultures* (New York State Museum, *Educational Leaflet Series*, no. 6, Albany, 1950).

—, "Indian Mounds of the Genesee Valley," in Rochester Museum of Arts and Sciences, *Museum Service*, IX, no. 9, Rochester, 1936), pp. 174-75.

—, *The Lamoka Lake Site . . .* (New York State Archeological Association, Lewis H. Morgan Chapter, *Researches and Transactions*, VII, no. 4, Rochester, 1932).

—, "New Evidence Relating to Munsee Prehistory" (Abstract), in Eastern States Archeological Federation, *Bulletin No. 7* (New Haven, 1948), pp. 10-11.

—, "A Prehistoric Burial Site at Sea Breeze, New York," in Rochester Museum of Arts and Sciences, *Museum Service*, XIII, nos. 2-3, Rochester (1940), pp. 30-33.

—, *A Prehistoric Fortified Village Site at Canandaigua, Ontario County, New York (Research Records of the Rochester Museum of Arts and Sciences No. 3)*, Rochester, 1936.

—, *The Pre-Iroquoian Occupations of New York State* (Rochester Museum of Arts and Sciences, *Memoir No. 1*, Rochester, 1944).

—, and MacNeish, Richard S., "Pre-Iroquoian Pottery of New York State," in *American Antiquity*, XV, no. 2 (1948), pp. 97-124.

—, "Recent Advances in New York and the Northeast," in *Recent Advances in American Archaeology* (American Philosophical Society, *Proceedings*, LXXXVI, no. 2, Philadelphia, 1943), pp. 313-14.

—, *Some Algonkian and Iroquoian Camp Sites around Rochester* (New York State Archeological Association, Lewis H. Morgan Chapter, *Researches and Transactions*, V, no. 3, Rochester, 1927).

—, *A Stratified Prehistoric Site at Brewerton, New York (Research Records of the Rochester Museum of Arts and Sciences No. 8)*, Rochester, 1946.

—, "Their Mouths Are Stopped With Dust," in *Archaeology*, IV, no. 3 (New York, 1951), pp. 136-44.

—, *Two Prehistoric Village Sites at Brewerton, New York . . . (Research Records of the Rochester Museum of Arts and Sciences No. 5)*, Rochester, 1940.

Ritzenthaler, Robert E., *see* McKern, William C.

Rouse, Irving, and Goggin, John M. (eds.), *An Anthropological Bibliography of the Eastern Seaboard* (Eastern States Archeological Federation, *Research Publication No. 1*, New Haven, 1947).

—, "Pottery of the Region of Long Island Sound" (Abstract), in Eastern States Archeological Federation, *Bulletin No. 7* (New Haven, 1948), pp. 16-17.

Ruth, John A., "Remains in Bucks County, Pa.," in Smithsonian Institution, *Annual Report*, 1883 (Washington, D. C., 1885), pp. 872-76.

Sapir, Edward, *Time Perspective in Aboriginal American Culture, A Study in Method* (Canada Department of the Mines, *Memoir 90*, Anthropological Series, no. 13, Ottawa, 1916).

Satterthwaite, Linton, Jr., *see* Bache, Charles.

Saville, Foster H., *A Montauk Cemetery at Easthampton, Long Island* (Museum of the American Indian, Heye Foundation, *Indian Notes and Monographs*, II, no. 3, New York, 1920).

Schmitt, Karl, "Description of Aboriginal Artifacts from Patawomeke," MS (1952).

Schoff, Harry L., "Excavation of the Village Area near the Burial Mound on the H. G. Brock Property, Muncy, Pa.," in *The Pennsylvania Archaeologist*, VII, no. 1 (1937), pp. 6-7.

—, "McFate Site. Report on Archaeological Excavations Conducted in Northwestern Pennsylvania by the Works Progress Administration," MS (1947).

—, "A Report of the Excavation of the Ancient Indian Burial Mound near Muncy, Lycoming County, Penna.," in *The Pennsylvania Archaeologist*, VII, no. 1 (1937), pp. 3-5.

Schrabisch, Max, *Archaeology of the Delaware River Valley . . . (Publications of the Pennsylvania Historical Commission*, I, Harrisburg, 1930).

Schultz, Floyd, and Spaulding, Albert C., "A Hopewell Burial Site in the Lower Republican Valley, Kansas," in *American Antiquity*, XIII, no. 4 (1948), pp. 306-13.

Scott, James H., "The Human Face in Stone," in Archaeological Society of Delaware, *Bulletin*, III, no. 2 (1939), pp. 26-28.

Setzler, Frank M., *The Archaeology of the Whitewater Valley (Indiana History Bulletin*, VII, no. 12, Indianapolis, September, 1930).

Shetrone, Henry C., "Explorations of the Hopewell Group of Prehistoric Earthworks," in *Ohio Archaeological and Historical Quarterly*, XXXV (1926), pp. 5-227.

—, and Greenman, Emerson F., "Explorations of the Seip Group of Prehistoric Earthworks," in *Ohio Archaeological and Historical Quarterly*, XL, no. 3 (1931), pp. 345-509.

—, "The Indian in Ohio," in *Ohio Archaeological and Historical Quarterly*, XXVII (1918), pp. 274-508.

Shippee, J. M., "Hopewellian and Middle Mississippi Remains from the Kansas City Area," in *The Missouri Archaeologist*, VII, no. 2 (Columbia, 1941), pp. 29-32.

Skinner, Alanson B., *Archeological Investigations on Manhattan Island, New York City* (Museum of the

American Indian, Heye Foundation, *Indian Notes and Monographs*, II, no. 6, New York, 1920).

—, "Archaeology of Manhattan Island," in American Museum of Natural History, *Anthropological Papers*, III (New York, 1909), pp. 213-35.

—, *Exploration of Aboriginal Sites at Throgs Neck and Clasons Point, New York City* (Museum of the American Indian, Heye Foundation, *Contributions*, V, no. 4, New York, 1919).

—, "General Archeological Criteria of Early Algonkian Culture," in *The Algonkian Occupation of New York* (New York State Archeological Association, Lewis H. Morgan Chapter, *Researches and Transactions*, IV, no. 2, Rochester, 1923), pp. 29-48.

—, *The Indians of Manhattan Island and Vicinity* (American Museum of Natural History, *Guide Leaflet Series No. 41*, New York, 1915).

—, "The Lenape Indians of Staten Island," in American Museum of Natural History, *Anthropological Papers*, III (New York, 1909), pp. 3-62.

—, *The Pre-Iroquoian Algonkian Indians of Central and Western New York* (Museum of the American Indian, Heye Foundation, *Indian Notes and Monographs*, II, no. 1, New York, 1919).

—, *Two Lenape Stone Masks from Pennsylvania and New Jersey* (Museum of the American Indian, Heye Foundation, *Indian Notes and Monographs*, New York, 1920).

Smith, Carlyle S., *The Archeology of Coastal New York* (American Museum of Natural History, *Anthropological Papers*, XLIII, pt. 2, New York, 1950).

—, "Archaeological Investigations in Ellsworth and Rice Counties, Kansas," in *American Antiquity*, XIV, no. 4, pt. 1 (1949), pp. 292-300.

—, "Clues to the Chronology of Coastal New York," in *American Antiquity*, X, no. 1 (1944), pp. 87-98.

—, "A Stone Effigy from Long Island," in *American Antiquity*, XI, no. 3 (1946), pp. 200-1.

—, "Two Pottery Collections from the State of Kansas," in *Proceedings of the Fifth Plains Conference for Archeology* (University of Nebraska, Laboratory of Anthropology, *Note Book No. 1*, Lincoln, 1949), pp. 81-84.

Smith, Harlan I., *The Prehistoric Ethnology of a Kentucky Site* (American Museum of Natural History, *Anthropological Papers*, VI, pt. 2, New York, 1910).

Snyder, J. F., "A Group of Illinois Mounds," in *The American Archaeologist*, II, pt. 1 (Columbus, Ohio, 1898), pp. 16-23.

—, "A Group of Illinois Mounds, in *The Archaeologist*, III, nos. 3 and 4 (Columbus, Ohio, 1895), pp. 77-81, 109-13.

Solecki, Ralph S., "An Archaeological Survey of Two River Basins in West Virginia," in *West Virginia History*, X, no. 3 (1949), 189-212.

Spaulding, Albert C., "The Middle Woodland Period in the Central Plains," in *Proceedings of the Fifth Plains Conference for Archeology* (University of Nebraska, Laboratory of Anthropology, *Note Book No. 1*, Lincoln, 1949), pp. 105-11.

—, "The Origin of the Adena Culture," in *Southwestern Journal of Anthropology*, VIII, no. 3 (Albuquerque, 1952), pp. 260-68.

—, *see also* Schultz, Floyd.

Speck, Frank G., *Chapters on the Ethnology of the Powhatan Tribes of Virginia* (Museum of the American Indian, Heye Foundation, *Indian Notes and Monographs*, I, no. 5, New York, 1928).

—, "The Ethnic Position of the Southeastern Algonkian," in *American Anthropologist*, N.S. XXVI, no. 2 (1924), pp. 184-200.

—, *The Iroquois: A Study in Cultural Evolution* (Cranbrook Institute of Science, *Bulletin No. 23*, Bloomfield Hills, Mich., 1945).

—, *Masking in Eastern North America* (University of Pennsylvania Museum, *Bulletin*, XV, no. 1, Philadelphia, 1950).

—, "Speaking of the Delaware," in *The Pennsylvania Archaeologist*, IV, no. 4 (1935), pp. 3-9.

—, *A Study of the Delaware Indian Big House Ceremony*... (Publications of the Pennsylvania Historical Commission, II, Harrisburg, 1931).

—, "The Wapanachki Delawares and the English," in *Pennsylvania Magazine of History and Biography*, LXVII, no. 4 (Philadelphia, 1943), pp. 319-44.

Spier, Leslie, "New Data on the Trenton Argillite Culture," in *American Anthropologist*, N.S. XVIII, no. 2 (1916), pp. 181-97.

—, "Results of an Archaeological Survey of the State of New Jersey," in *American Anthropologist*, XV, no. 4 (1913), pp. 675-79.

—, *The Trenton Argillite Culture* (American Museum of Natural History, *Anthropological Papers*, XXII, pt. 4, New York, 1918).

Squier, E. G., and Davis, E. H., *Ancient Monuments of the Mississippi Valley* (Smithsonian Contributions to Knowledge, I, Washington, D. C., 1848).

—, "Historical and Mythological Traditions of the Algonquins . . .," in *The American Review, a Whig Journal devoted to Politics and Literature*, no. xiv (February, 1849), pp. 273-93.

Stearns, Richard E., "Ceramic Types of the Upper Chesapeake Bay" (Abstract), in *Eastern States Archeological Federation, Bulletin No. 7* (New Haven, 1948), pp. 20-21.

—, *The Hughes Site* (The Natural History Society of Maryland, *Proceedings*, no. 6, Baltimore, 1940).

—, "Sites on the Eastern Shore of Maryland," in *Archaeological Society of Delaware, Bulletin*, III, no. 4 (1941), pp. 34-35.

Stewart, Thomas B., "Archaeology of the West Branch," in *A Report of the Susquehanna River Expedition*, compiled and annotated by Warren K. Moorehead (Andover, Mass., 1938), pp. 76-88.

Stewart, T. Dale, "Excavating the Indian Village of Patawomeke (Potomac)," in *Exploration and Field-Work of the Smithsonian Institution in 1938* (Washington, D. C., 1939), pp. 87-90.

—, "The Finding of Two Ossuaries on the Site of the Indian Village of Nacotchtanke (Anacostia)," in *Washington Academy of Sciences, Journal*, XXVII, no. 5 (Washington, D. C., 1937), pp. 213-19.

—, "Further Excavations at the Indian Village Site of Patawomeke (Potomac)," in *Explorations and Field-Work of the Smithsonian Institution in 1939* (Washington, D. C., 1940), pp. 79-82.

Strong, William Duncan, *An Introduction to Nebraska Archaeology* (*Smithsonian Miscellaneous Collections*, XLIII, no. 10, Washington, D. C., 1935).

Stubbs, Francis L., "A Preliminary Report on the Mill Creek Area of Andrew County, Missouri," in *The Missouri Archaeologist*, XII, no. 1 (Columbia, 1950), pp. 2-47.

Swientochowski, John, and Weslager, C. A., "Excavations at Crane Hook Site, Wilmington, Delaware," in *Archaeological Society of Delaware, Bulletin*, III, no. 5 (1942), pp. 2-17.

Tantaquidgeon, Gladys, "Delaware Indian Art Designs," in *The Pennsylvania Archaeologist*, XX, nos. 1-2 (Philadelphia, 1950), pp. 24-30.

Taylor, J. L. B., *see* Baker, Frank Collins.

Thomas, Cyrus, *The Problem of the Ohio Mounds* (U. S. Bureau of American Ethnology, *Bulletin* 8, Washington, D. C. 1889).

—, "Report on the Mound Explorations of the Bureau of Ethnology," in *U. S. Bureau of American Ethnology, Annual Report*, 1890-91 (Washington, D. C., 1894), pp. 3-742.

—, "The Story of a Mound; or, the Shawnee in Pre-Columbian Times," in *American Anthropologist*, O.S. IV, nos. 2 and 3 (Washington, D. C., 1891), pp. 109-59, 237-73.

Thompson, Charles N., *Sons of the Wilderness, John and William Conner* (*Indiana Historical Society Publications*, XII, Indianapolis, 1937).

Titterington, Paul F., "Certain Bluff Mounds of Western Jersey County, Illinois," in *American Antiquity*, I, no. 1 (1935), pp. 6-46.

Tooker, William Wallace, "The Problem of the Rechahecian Indians of Virginia," in *American Anthropologist*, XI, no. 9 (Washington, D. C., 1898), pp. 261-70.

Tucker, Sara Jones, *Indian Villages of the Illinois Country* (Illinois State Museum, *Scientific Papers*, II, pt. 1, Springfield, Ill., 1942).

Voegelin, C. F., and Voegelin, Erminie W., (comps.), *Map of North American Indian Languages* (American Ethnological Society, *Publication No. 20*, New York, 1941).

Volk, Ernest, *The Archaeology of the Delaware Valley* (Peabody Museum of American Archaeology and Ethnology, Harvard University, *Papers*, V, Cambridge, 1911).

Wake, C. Staniland, "Migrations of the Algonkins," in *American Antiquarian*, XVI (Goodhope, Ill., 1894), pp. 127-39.

—, "The Migrations of the Lenape," in *American Antiquarian*, XXX (Chicago, 1908), pp. 221-23.

Walker, Winslow M., "The Dickinson Mound Group, Peoria County Illinois," in *Hopewellian Communities in Illinois*, edited by Thorne Deuel (Illinois State Museum, *Scientific Papers Vol. V*, Springfield, 1952), pp. 14-41.

—, *see also* Adams, Robert McCormick.

Wallace, Anthony F. C., "The Indian Occupation of the Delaware River Valley in Historic and Protohistoric Times." MS.

—, "The Role of the Bear in Delaware Society," in *The Pennsylvania Archaeologist*, XIX, nos. 1-2 (1949), pp. 37-45.

—, "Woman, Land, and Society: Three Aspects of Aboriginal Delaware Life," in *The Pennsylvania Archaeologist*, XVII, nos. 1-4 (1947), pp. 1-46.

Webb, William S., and Snow, Charles E., *The Adena People . . .* (University of Kentucky, *Reports in Anthropology and Archaeology*, VI, Lexington, 1945).

—, and Funkhauser, William D., *Ancient Life in Kentucky* (Kentucky Geological Survey, Frankfort, 1928).

—, and Wilder, Charles G., *An Archeological Survey of Guntersville Basin on the Tennessee River in Northern Alabama* (University of Kentucky Press, Lexington, 1951).

—, *An Archeological Survey of the Norris Basin in Eastern Tennessee* (U. S. Bureau of American Ethnology, *Bulletin* 118, Washington, D. C., 1938).

—, and de Jarnette, David L., *An Archeological Survey of Pickwick Basin in the Adjacent Portions of the States of Alabama, Mississippi and Tennessee* (U. S. Bureau of American Ethnology, *Bulletin* 129, Washington, D. C., 1942).

—, *An Archeological Survey of the Wheeler Basin on the Tennessee River in Northern Alabama* (U. S. Bureau of American Ethnology, *Bulletin* 122, Washington, D. C., 1939).

—, and Haag, William G., *The Fisher Site, Fayette County, Kentucky* (University of Kentucky, *Reports in Anthropology*, VII, no. 2, Lexington, 1947).

Wedel, Waldo R., *Archeological Investigations in Platte and Clay Counties, Missouri* (U. S. National Museum, *Bulletin* 183, Washington, D. C., 1943).

—, "Culture Chronology in the Central Great Plains," in *American Antiquity*, XII, no. 3, pt. 1 (1947), pp. 148-56.

—, *Prehistory and the Missouri Valley Development Program* . . . (Smithsonian Institution, *Miscellaneous Collections*, CXI, no. 2, Washington, D. C., 1948).

Weer, Paul, "Concerning Migration Paths, or What Became of the Hopewellians," in *Proceedings of the Indiana Academy of Science*, 1937, XLVII (Indianapolis, 1938), 50-52.

Weslager, Clinton A., "An Aboriginal Shell Heap near Lewes, Delaware," in Archaeological Society of Delaware, *Bulletin*, III, no. 2 (1939), pp. 3-8.

—, "The Anthropological Position of the Indian Tribes of the Delmarva Peninsula," in Archaeological Society of Delaware, *Bulletin*, IV, no. 4 (1947), pp. 3-7.

—, (ed.), "Crane Hook Excavations—Preliminary Notes," in Archaeological Society of Delaware, *Bulletin*, III, no. 2 (1939), pp. 8-11.

—, *Delaware's Buried Past* . . . (University of Pennsylvania Press, Philadelphia, 1944).

—, "Delaware Indian Villages," in *The Pennsylvania Archaeologist*, XII, no. 3 (Harrisburg, 1942), pp. 53-56.

—, "The Delaware Indians as Women," in Washington Academy of Science, *Journal*, XXXIV, no. 12 (Washington, D. C., 1944), pp. 381-88.

—, *Delaware's Forgotten Folk* . . . (University of Pennsylvania Press, Philadelphia, 1943).

—, "Delmarva Bannerstones," in Archaeological Society of Delaware, *Bulletin*, III, no. 1 (1939), pp. 11-17.

—, "Further Light on the Delaware Indians as Women," in Washington Academy of Science, *Journal*, XXXVII, no. 9 (Washington, D. C., 1947), pp. 298-304.

—, "The Indians of Lewes, Delaware, and an Unpublished Indian Deed of June 7, 1659," in Archaeological Society of Delaware, *Bulletin*, IV, no. 5 (1949), pp. 6-14.

—, "Indian Stone Piles in Maryland," in *Maryland History Magazine*, XLII, no. 1 (Baltimore, 1947), pp. 46-49.

—, "Indian Tribes of the Delmarva Peninsula," in Archaeological Society of Delaware, *Bulletin*, III, no. 5 (1942), pp. 25-36.

—, "Indian Village at Lewes, Delaware," in Archaeological Society of Delaware, *Bulletin*, IV, no. 1 (1943).

—, "Indians of the Eastern Shore of Maryland and Virginia," in *The Eastern Shore of Maryland and Virginia*, edited by Charles B. Clark (New York, 1950), pp. 39-69.

—, "The Minquas and Their Early Relations with the Delaware Indians," in Archaeological Society of Delaware, *Bulletin*, IV, no. 1 (1943), pp. 14-23.

—, "The Monongahela Woodland Culture of Western Pennsylvania," in *The Pennsylvania Archaeologist*, IX, no. 4 (1939), pp. 59-62.

—, "Monongahela Woodland Culture and the Shawnee," in *The Pennsylvania Archaeologist*, XVIII, nos. 1-2 (Harrisburg, 1948), pp. 19-22.

—, *The Nanticoke Indians: A Refugee Tribal Group of Pennsylvania* (The Pennsylvania Historical and Museum Commission, Harrisburg, 1948).

—, "The Nanticoke Indians in Early Pennsylvania History," in *Pennsylvania Magazine of History and Biography*, LXVII, no. 4 (Philadelphia, 1943), pp. 345-55.

—, "Ossuaries of Delmarva Peninsula and Exotic Influences in the Coastal Aspect of the Woodland Period," in *American Antiquity*, VIII, no. 2 (1942), pp. 142-51.

—, "Shell Heaps of the Delmarva Peninsula," in *The Pennsylvania Archaeologist*, XI, no. 1 (1941), pp. 17-24.

—, *see also* Dunlap, A. R.; Swientochowski, John.

Wilford, Lloyd A., "A Tentative Classification of the Prehistoric Cultures of Minnesota," in *American Antiquity*, VI, no. 3 (1941), pp. 231-49.

Will, George F., *Archaeology of the Missouri Valley* (American Museum of Natural History, *Anthropological Papers*, XXII, pt. 6, New York, 1924).

Willey, Gordon, *see* Ford, James A.

Willoughby, Charles C., *Antiquities of the New England Indians . . .* (Peabody Museum of American Archaeology and Ethnology, Harvard University, Cambridge, 1935).

—, "The Art of the Great Earthwork Builders of Ohio," in *Holmes Anniversary Volume, Anthropological Papers Presented to William Henry Holmes* (Washington, D. C., 1916), pp. 469-80.

—, "Michabo the Great Hare: a Patron of the Hopewell Mound Settlement," in *American Anthropologist*, N. S. XXXVII, no. 2 (1935), pp. 280-86.

—, and Hooton, Earnest A., *The Turner Group of Earthworks*, Hamilton County, Ohio . . . (Peabody Museum of American Archaeology and Ethnology, Harvard University, *Papers*, VIII, no. 3, Cambridge, 1922).

—, "The Virginia Indians in the Seventeenth Century," in *American Anthropologist*, N. S. IX, no. 1 (1907), pp. 57-86.

—, *see also* Hooton, Earnest A.

Wilson, Thomas, "Prehistoric Art," in U. S. National Museum, *Annual Report*, 1896 (Washington, D. C., 1898), pp. 325-64.

Wintemberg, W. J., *The Middleport Prehistoric Village Site* (National Museum of Canada, *Bulletin* No. 109, *Anthropological Series* No. 27, Ottawa, 1948).

Witthoft, John, "Ceramic Areas and Tribal Distributions in the Late Woodland of Eastern Pennsylvania" (Abstract), in Eastern States Archeological Federation, *Bulletin* No. 8 (New Haven, 1949), pp. 6-7.

—, "Ceramic Sequences in Eastern Pennsylvania." MS (1948?).

—, "Ceramic Sequences in Eastern Pennsylvania" (Abstract), in Eastern States Archeological Federation, *Bulletin* No. 7 (New Haven, 1948), p. 18.

—, "Coastal Algonkian Ceramic Areas in Terms of Pottery Series." MS (1951).

—, "The History and Present Status of Pennsylvania Archeology," in American Philosophical Society, *Proceedings*, XCIV, no. 3 (Philadelphia, 1950), pp. 301-7.

—, "Iroquois and Earlier Horizons on the Upper Susquehanna," in Archeological Society of New Jersey, *News Letter*, no. 20 (Trenton, 1949).

—, "Pottery Types of the Lower Susquehanna" (Abstract), in Eastern States Archeological Federation, *Bulletin* No. 9 (New Haven, 1950), pp. 10-11.

—, "Report on Delaware Research Project." MS.

—, and Farver, S. S., "Two Shenk's Ferry Sites in Lebanon County, Pennsylvania," in *The Pennsylvania Archaeologist*, XXII, no. 1 (1952), pp. 3-32.

—, *see also* Fenton, William N.

Young, Bennett H., *Prehistoric Men of Kentucky . . .* (*Filson Club Publications*, No. 25, Louisville, 1910).

THE WALAM OLUM IN LIGHT OF PHYSICAL ANTHROPOLOGICAL DATA ON THE LENAPE

BY GEORG K. NEUMANN

ONE of the most important prerequisites for the testing of an historical reconstruction, such as the migration tradition of the Walam Olum, is that there exists a basic framework into which a series of data can be fitted. This historical framework should be based on the best available evidence from as many disciplines as possible, and should be the result of careful weighing of the facts that support each other. Ultimately the proof is still a matter of probability, but it must be realized that with the accumulation of more and more evidence some of these probabilities become very high, while others are so low that they can almost be ruled out. It is the purpose of this brief chapter to examine the evidence provided by the skeletal remains that have been attributed to the Delaware to see whether it is possible to trace the racial type or types represented in such a population back over the designated migration route of the Walam Olum, to determine their relationship to neighboring populations, and to see to what extent this data fits the best available conclusions of the archaeologist, ethnographer, historical linguist, and historian on this subject. Under the most favorable conditions, that is, if the evidence from all these fields points the same way, alternate possibilities may be discounted by a process of elimination. Even though a multiplicity of factors are involved, in this particular case the field can be narrowed down to an alternate set of possibilities.

The first of these is that if the Townsend Site crania can be identified as Delaware (Unalachtigo), a population of the Otamid variety can be traced westward into the Ohio and Illinois valleys in Early and Middle Woodland times. In that case the ancestors of the Delaware could have been the bearers of the Hopewell cul-

ture. The alternate possibility consists of an identification of the Delaware tribe with a Lenapid population. If it could be shown that the people at the Bell-Philhower Site had been Munsee and Lenapid it would provide evidence for linking the Delaware with the Central Algonkin tribes whose movement south and east is known to have been late.

The chronologico-racial framework into which the history of the Delaware has been fitted was published by the writer in a paper: "Archeology and Race in the American Indian."¹ This study, based on an examination of over ten thousand crania of American Indians of known archaeological affiliations from all parts of the continent, describes eight basic varieties and accounts for these by postulating five migrations from northeastern Asia. It is beyond the scope of this paper to review the descriptions, cultural and possible linguistic affiliations, and movements of these varieties, but it should be pointed out that these varieties are the only kind of entities that can be used as proof for migrations. These varieties do not represent types in the sense of selecting from various populations individuals representing certain metrical combinations, but consist of the description of relatively homogeneous populations, stabilized by inbreeding, from a number of archaeological horizons, from marginal or refuge areas, or from continuous continental areas of distribution as yet undisturbed by the shattering effect of the arrival of new groups. The populations of the centers of culture areas, in contrast, generally represent considerable degrees of mixture. Since but few of these varieties coincide exactly in distribution, inclusiveness, and morphological description with previously described racial groups, a series of names had to be assigned to them. The description of these zoological varieties is basically morphological since metrical analyses tend to reflect genetic conditions much less satisfactorily. Statistical methods have been resorted to only for descriptive purposes and only as a tool for reducing large masses of data. This method of attacking various problems of the racial history of the American Indian has yielded satisfactory results, which often found cultural confirmation from other quarters and in a number of instances could be checked by historical records of migrations.

¹Neumann, Georg K., "Archeology and Race in the American Indian," in *Archeology of Eastern United States*, edited by James B. Griffin (University of Chicago Press, 1952), pp. 13-34.

Although both the ultimate Asiatic origin of the American Indian, and the peopling of the New World by a series of migrations are now generally accepted, there is as yet no consensus as to the exact number of these migrations and how large these groups were. The earlier ones, with the first dating back to at least immediately postglacial times, may have consisted of relatively small group movements; the later ones, and especially the one that brought the ancestors of late Andean, Middle American, and Southeastern tribes, may have been rather extensive. The descendants of the earlier migrants would have had the necessary time and opportunity as small isolates to undergo selective changes in response to varied environmental conditions. This may have been the case with some of the tribes that inhabited the pampas, the tropical rain forest, and the deserts of the Southwest. On the other hand, the tribes that can be linked with the Deneid migration are quite distinct and are undoubtedly newcomers. The Athapascan-speaking tribes, the proto-Aleuts and Aleuts, and elements that contributed to a number of Northwest Coast tribes and the Eskimo, have too much in common with the late expansion of a relatively differentiated central Siberian group to represent a separate development in the northwestern part of North America. Their adaptations were made to boreal conditions of northern Asia. The description of possible ancestral Neolithic groups from the headwaters of the Lena and Angara rivers can be found in the Russian literature and have been summarized by Hrdlička.² The variety that was ancestral to the Delaware, whether we link them to one Otamid migration or a separate Lenapid one, clearly antedates the radiation of the Tungid Siberians and the Deneid migration into the New World. This obviously indicates that the solution to problems involving earlier migrations from Siberia and local changes of populations await more extensive work both in Siberia and the New World, especially South America, to obtain data on some of the earlier migrants.

Since it is necessary to trace the Delaware backward from varieties that are known to occur among them, only two, the Otamid and Lenapid, come into consideration. Both constitute varieties of the subspecies *asiaticus* of *Homo sapiens*, but both exhibit a number of characteristics that have been recognized as europo-

²Hrdlička, Aleš, "Crania of Siberia," in *American Journal of Physical Anthropology*, XIX (Washington, D. C., 1942), 435-81.

morphic, that is to say, exhibit traits that may indicate a population that was ancestral both to the Neolithic population of the subspecies *europaeus* inhabiting the Minusinsk area and to the Neolithic population of the subspecies *asiaticus* living in the Lake Baikal area. It so happens that the Neolithic Siberian europoids were the bearers of the Afanasiev and Andronovo cultures which share the remarkable ceramic similarities with the Early Woodland and Hopewellian cultures of the Mississippi Valley. A search for a common ancestor, not yet distinctly *europaeus* or *asiaticus*, would probably take us back into the Upper Palaeolithic, and to a population of which we have no more evidence than the remains from the Upper Cave of Choukoutien. It must have been this as yet undiscovered group that gave rise to the Minusinsk people, the Otamids, the Anyang people and their southern Mongoloid descendants who exhibit somewhat closer relationships to the Walcolids, and finally the Baikal people who gave rise to Deneids and central Asiatic tribes. Descendants of this Upper Palaeolithic group and close relatives of the Otamids may be recognized in the Eneolithic population of the Upper Lena and Angara rivers and perhaps the basic long-headed and high-vaulted element among the Yukaghirs. According to a recent article by Tolstoy³ summarizing the Asiatic archaeological sequence of cultures and their chronological position, it follows that a migration of a people with a ceramic complex resembling that of the Early Woodland cultures would have to be placed back to a period between the second and third millennium B.C. Since such cultural manifestations are almost always associated with skeletal material of the Otamid variety in the eastern Woodland area, it is safe to assume that this racial group was the carrier of the Woodland culture. The projecting of the crossing of Bering Strait by this Otamid group back four thousand years should indicate that traditional references to it can be interpreted only in a general way.

In the reconstruction of the racial history of the American Indian the Otamid variety is assumed to represent the earliest finds in the New World,⁴ although, as has already been pointed out, it probably will have to be broken up into several when additional finds have been made. The arrival of the earliest Palaeo-Amerinds certainly was not a mass migration with a comparatively high state of organization

³Tolstoy, Paul, "Some Amerasian Pottery Traits in North American Prehistory," in *American Antiquity*, XIX (1953), 25-39.

⁴Neumann, "Archeology and Race in the American Indian," in *Archeology of Eastern United States*, pp. 15-17.

as a basis. It can rather be regarded as a gradual shift of small groups governed by the food quest, growth of population, and pressure of numbers. With a period from 11,000 to 20,000 years available, it is reasonable to assume considerable modifications of some of the earlier groups once they have reached the New World. Hence, the series from the Texas Coast that has been identified as Karankawa and was used as a type series, can be expected to resemble other archaeologically early or marginal populations only in general lines. Populations, such as a number of early South American groups, the Early Sacramento Valley people of California, or early groups from Oregon or Wyoming may constitute early offshoots from the parent stock. The Karankawa from the Texas Coast and the Pericue of Lower California may have been relatively static remnants that persisted into proto-historic times. Still others—and here I have the Otamids of the northeastern Woodlands in mind—may be remnants of the same Palaeo-Amerind parent stock, but a group that did not make the crossing into North America until much later. It most likely occupied the northeastern North American marginal area for a considerable time, that is, over the period during which the differentiation that resulted in the more round and high-vaulted varieties occurred in eastern Asia. There this radiation probably gave rise (1) to the Southern Mongoloids, (2) to the Western Sibirids who expanded to northwestern Siberia and northeastern Europe, and (3) to the stock that gave rise to the Neo-Amerinds, who in turn differentiated locally into varieties that are now found in the Amazon Valley, the Andes, Central America, and the southeastern part of the United States. Considering their numbers, linguistic differentiation, relatively late appearance, and physical resemblances to some eastern Asiatic groups, the Neo-Amerinds provide the best evidence for a major migration to the New World. In other words, in case of the Neo-Amerinds, just as with the earlier Otamids and the later Deneids, there are good counterparts in the Old World.

Returning to the earlier migrants, this scheme would imply the crossing of Bering Strait by three Palaeo-Amerind populations: (1) the Early Palaeo-Amerinds; (2) the Archaic people who differentiated into varieties found in the Sambaquis of eastern Brazil, the deposits of the Basket-Makers of the Southwest, and the ancient shell middens of the Tennessee and Ohio drainage; and (3) the dolichocranial

Algonquian Otamid group of the Northeastern Woodland area. Only in being bypassed while occupying the Ohio Valley and the Northeast by the Walcolids that were ancestral to many tribes of the Great Basin, the Southeast, Middle and South America, can we find a logical explanation for the presence of the Otamid Algonquians in that area wedged in between the Moskogean and Athapascan-speaking peoples. An elucidation of the degree of relationship of the Otamid series from Long Island and Manhattan Island—representing groups which were in all probability Delaware—to the Karankawa series can be found in a paper by Clauser.⁵

At the outset it was stated that the problem of tracing the Lenape back to the Ohio Valley hinged on the identification of the skeletal material excavated in the area known to have been occupied by that tribe as actually Lenape. In the preceding chapter Black states that: "In general the Munsee were in the upper Delaware River basin with headquarters at or about Minisink Island. The Unami were south of the Lehigh River to about the Delaware-Pennsylvania line. They were probably involved in the occupation of New Jersey from the Delaware River to Long Island Sound, either directly or through close relatives, and even on the islands of Manhattan, Long, and Staten. The Unalachtigo have been credited with dwelling in southern New Jersey and adjacent Delaware." It is also of importance that Black comes to the conclusion that: "Such a three-way division of the Lenape has historical, linguistic, and ethnic basis and archaeological material seems to add further verification."

The skeletal material that is available for comparison consists of a series of crania from the Townsend Site near Lewes, Delaware, that has been identified—even if only tentatively—as Unalachtigo. The Unami area produced small series from the Abbott, Lenhart, and Red Valley sites, and others from Long and Manhattan islands. The series from the Bell-Philhower Site, finally, which shall be considered later, is the only series that may possibly have been Munsee.

An examination of this skeletal material⁶ showed it to be unexpectedly homoge-

⁵Clauser, Charles E., "The Relationship between a Coastal Algonkin and a Karankawa Cranial Series," in *Proceedings of the Indiana Academy of Science*, 1947, LVII (1948), 18-23.

⁶The author here wishes to express thanks to Frank M. Setzler and Dr. T. Dale Stewart of the U. S. National

Museum, Dr. Harry L. Shapiro of the American Museum of Natural History, and Dr. Dorothy Cross Jensen of the New Jersey State Historical Commission, for the privilege of examining the collection of crania in their care.

neous, so much so, in fact, that a Lenape identification is fully confirmed. If some of this skeletal material is not Lenape, there is none in existence, and since only one variety—the Otamid variety—is represented, any of the smaller series or the pooled series can be utilized for further comparisons with possible ancestral groups.

Tables I and II give a comparison of 35 measurements and 22 indices of the Townsend and New York Coast series with an Illinois Hopewell series. Even casual inspection reveals the striking similarities of the three series. The similarities are fully as close as those between various Eskimo groups, and can be characterized as near identity. This is all the more remarkable since there is no selection involved; every measurable undeformed adult male skull was included. The series are small, are separated by as much as seven hundred miles, and cover a possible time span of six hundred years. A comparison of morphological traits led to the same conclusion but is not included here. It forms part of a paper, "The Physical Anthropology of the Lenape Indians," that is being prepared.

The significance of this physical relationship is obvious. Archaeologically the Abbott Site in New Jersey immediately south of Trenton, which furnishes similar skeletal material, forms a link between a possible early Delaware site, Middle Woodland manifestations, and certain Hopewell ceramic wares of the Ohio and Illinois river valleys. Now it has been demonstrated that physically identical groups were responsible for these cultural units. Furthermore, in the area north of the Ohio, between the Mississippi and the Alleghenies we know of but one variety of American Indian on the Middle Woodland time level. This is the Otamid variety which replaces the earlier Archaic Iswanid variety in southern Illinois, southern Indiana, and southern Ohio. In other areas of North America the Otamid variety, or possibly others closely related to it, seem to precede the Iswanid variety. Here in the Ohio Valley all indications point to its later appearance on the scene in association with Woodland pottery. Recent excavations of Hopewellian village sites, burial mounds, and a cemetery in the Wabash Valley⁷ have convinced the writer that the Hopewell culture developed out of a Woodland base. The crania from the underlying Woodland stratum, whether from the Black Sand Focus of the Illinois

⁷Neumann, Georg K., and Fowler, Melvin L., *Hopewellian Sites in the Lower Wabash Valley* (Illinois State Museum, *Scientific Papers*, V, No. 5, Springfield, 1951), pp. 175-243.

TABLE I
MEAN MEASUREMENTS OF THREE MALE OTAMID SERIES

MEASUREMENTS	ILLINOIS HOPEWELL (13)	UNALACHTIGO LENAPE (13)	NEW YORK COAST (11)
CRANIAL VAULT			
Cranial module	153.8	154.3	157.7
Mean thickness of left parietal	4.8	5.4	...
Glabello-occipital length	188.3	186.6	191.9
Maximum breadth	135.1	136.8	140.2
Minimum frontal breadth	93.7	93.2	95.7
Basion-bregma height	137.0	140.9	140.0
Basion-porion height	22.3	25.6	...
Length of cranial base	102.3	105.2	103.9
FACE			
Total facial height	120.3	123.0	119.7
Upper facial height	71.6	73.3	72.9
Total facial breadth	136.2	138.8	131.4
Midfacial breadth	98.7	100.0	95.1
Interior biorbital breadth	97.2	98.0	97.8
Subtense to interior biorbital arc	18.7	18.9	17.4
Biorbital breadth	99.4	99.2	95.4
Anterior interorbital breadth	19.8	19.5	19.0
NASAL STRUCTURE			
Nasal breadth	25.1	24.9	24.3
Nasal height	51.3	53.1	52.1
Dacryal cord	22.0	21.1	22.0
Dacryal subtense to arc	11.4	11.8	12.0
Minimum nasal breadth	8.6	8.9	8.6
Subtense to nasal arc	4.0	4.2	4.1
ORBIT			
Left orbital height	34.2	33.6	32.7
Left orbital breadth (mf)	42.1	42.8	42.5
Left orbital breadth (d)	39.0	40.6	38.8
DENTAL ARCH AND PROFILE			
Maxillo-alveolar breadth	65.9	68.4	64.8
Maxillo-alveolar length	55.7	56.6	51.7
Facial length (prosthion)	98.8	99.4	95.4
Facial length (alveolar point)	97.4	98.0	94.1
ANGLES			
Gonial angle	118.0	114.7	...
MANDIBLE			
Length of mandible	108.8	108.0	112.2
Bicondylar breadth	122.0	126.0	121.2
Symphysial height	36.5	36.3	37.0
Biangular breadth	100.0	104.4	97.5
Minimum ramus length	35.3	37.0	32.1

TABLE II
MEAN INDICES OF THREE MALE OTAMID SERIES

INDICES	ILLINOIS HOPEWELL (13)	UNALACHTIGO LENAPE (13)	NEW YORK COAST (11)
CRANIAL VAULT			
Cranial	71.78	73.34	73.03
Length-height	72.47	75.66	72.97
Breadth-height	101.52	103.92	100.52
Mean height	84.57	87.66	85.02
Flatness of cranial base	16.35	18.17
Transverse fronto-parietal	69.26	68.17	68.21
FACE			
Total facial	87.94	88.46	94.17
Upper facial	52.10	53.02	54.76
Midfacial	71.72	72.94	76.42
Transverse crano-facial	100.00	102.34	94.17
Zygo-frontal	69.05	66.90	72.19
Fronto-mandibular	107.60	111.96	102.39
Zygo-mandibular	72.86	75.52	75.34
Facial flatness	19.23	19.30	17.82
Anterior interorbital	20.25	19.33	19.77
NASAL STRUCTURE			
Nasal	49.40	46.99	46.69
Nasal root height	52.13	55.94	55.52
Nasal bone height	47.53	47.31	48.68
ORBIT			
Left orbital (mf)	81.18	78.62	76.98
Left orbital (d)	87.26	82.87	83.77
DENTAL ARCH			
Maxillo-alveolar	117.85	120.94	125.52
MANDIBLE			
Mandibular	90.23	85.55	92.96

River Valley, Woodland burials along the Wabash, or the Stone Mounds of southern Indiana and Ohio, are all Otamid. The same variety persists through the Hopewellian culture climax in Illinois, southwestern Indiana, and southern Ohio despite southern contacts manifest in late sites.

The widespread distribution of groups of the Otamid variety in New England and the Maritime Provinces of Canada was in all probability the result of an older movement of an Algonquian-speaking group across Canada and then south along the Atlantic seaboard where the different tribes became established before the ar-

rival of the Lenape east of the Alleghenies. The skeletal remains of the Otamid Red Paint People of Maine furnish physical evidence for this movement just as the presence of archaeological complexes from Massachusetts to New York attest the presence of close cultural relatives of the Lenape to the north.

The necessary early split that is implied here may be the one narrated in Book IV, Verse 12 of the *Walam Olum*. On this Mr. Lilly comments: "This very well may be the point where the Northern Algonquians . . . separated from the main body to pass north of the Great Lakes 'far from the buffalo country' (IV, 14)."⁸ This is not inconsistent with the physical evidence, except that "northern Algonquians" and "main body" require a different interpretation. One group of Algonquian tribes probably crossed southern Ontario and Quebec and then became established on the Atlantic seaboard and the other group settled as the early tribes in the area south of the Great Lakes. These two groups of tribes were both of the Otamid variety. But that does not account for the Northern and Central Algonquians of the Lenapid variety, who remained behind in Manitoba and western Ontario, and in Minnesota and Wisconsin, respectively. The implications are that the Lenapids are to be derived from the Otamids in the Lake Winnipeg region rather than constituting a late migrant group from Asia. In other words, the derivation of the Central Algonquians from Otamids in North America and an identification of the Delaware with the Otamid variety in the East would be entirely inconsistent with a crossing of Bering Strait as late as A.D. 550. On the other hand, a linking of all Algonquians with an Otamid migration prior to 2000 B.C. would be in agreement with the archaeological evidence of the existence of a general Woodland culture, linguistic evidence for a Proto-Algonquian language, and physical evidence for a common variety. It is unlikely that there were two Algonquian migrations from Siberia with a time gap of two thousand years between them, and that the second or Central Algonkin group pushed through the territory occupied by the Athapascans tribes of northwestern Canada.

From the area between eastern Wyoming and the Missouri River, where according to Mr. Lilly's chronology the ancestors of the Lenape sojourned shortly after A.D. 1000, there exists physical as well as archaeological evidence bearing on this

⁸See *ante*, p. 278.

occupation. In the preceding chapter, Black pointed out Champe's provisional date of A.D. 1000 for the Woodland pottery in this region. A small series of skeletons from this horizon in western Nebraska constitutes an Otamid series and thereby furnishes a possible link with the groups east of the Mississippi.

Crossing the Mississippi around 1050, three hundred years could be allotted to the development of the Hopewellian culture with centers in the Illinois Valley and in southern Ohio. If no chiefs have been omitted from the record over this period it would give us twenty-five chiefs, and when this number is compared with the number of burial mounds for members of the ruling class over this territory, the span of time seems perhaps too brief. This is true even if one takes into account that a mound may have been erected for one person and that the tombs may contain sacrificial victims in addition to the important person. The depth of the village-site deposits, on the other hand, tend to bear out a three hundred year estimate.

Be the length of occupation of the Ohio Valley as it may, the Lenape came in contact with the Talligewi. If the Lenape are identified with the Hopewellians, the Adena people would be the most logical group to be identified as the Talligewi, for they were close at hand, possibly contemporaneous over an extended period of time, and probably were the Walcolid group that left a small but recognizable physical imprint on the developed Hopewellian people. A Cherokee identification of the Talligewi is much less likely for a number of reasons, the best of which are that culturally and physically the relationships of the Cherokee seem to have been closer to Middle Mississippi groups than to the Hopewellian people.

With the northward pressure of Middle Mississippi groups, expanding up the Mississippi, the Illinois, and as Caddoan-speakers up the Missouri, the Lenape moved east, evacuating territory into which their more marginal relatives, the Shawnee, Illiniwek, and Miami followed. A carefully repaired Illinois Valley Hopewell pot discovered in a tomb of the same culture in the Wabash River bottoms where a somewhat different ceramic ware prevails, may serve as a clue to this eastward movement.

Returning again to the chapter on the migration route, Mr. Lilly suggests that Book V, Verse 10 of the *Walam Olum* refers to the Nanticoke and the Shawnee moving south. Association of these two tribes, in my estimation, would be at

variance with the evidence of an earlier settlement of the Atlantic seaboard by an Algonquian group from New England or as part of the Lenape. The movement of the Shawnee into the area of the Fort Ancient Aspect about 1250 is much more in agreement with archaeological facts. Identification of the Shawnee with at least the northern foci of the Fort Ancient Aspect is not inconsistent with the physical evidence collected on this group. Their Upper Mississippi culture could well have been borrowed from a Walcolid group in Kentucky and prevailed in all the southern foci of that Aspect. Other Central Algonkin tribes experienced similar contacts with Mississippi people of the Walcolid variety. Thus the historic Kaskaskia represent a Lenapid-Walcolid mixture in the Starved Rock area, as do the Miami and Potawatomi of northern Illinois and Indiana, only with the difference that the Old Kaskaskia village people show Middle Mississippi influences, while the culture of the other two tribes have been designated as Upper Mississippi.

Before reaching the Atlantic seaboard while still living along the Susquehanna, the Lenape, and later, especially the Munsee division on the upper Delaware, came under the influence of the Iroquois and were conquered by them in 1720. The only site from which we have more than a few skeletons that have been attributed to the Munsee is the Montague Site of Heye and Pepper. It is now located on the Bell farm which is an integral part of the Bell-Philhower Site adjacent to Minisink Island. The Heye-Pepper excavations yielded the skeletal series described by Hrdlička as Munsee.⁹ But, as pointed out by Black and Ritchie, the site, besides yielding Castle Creek (Owasco Woodland) pottery, also contained pottery and other artifacts that can be attributed to the Seneca of post-European times. Unfortunately, the burials were not associated with pottery except fortuitously. In fact, intentional inclusions were of materials totally unlike anything generally considered as being Owasco, and shell objects were extremely Seneca-like. This raises serious doubts as to whether we are dealing here with an acculturated Munsee series, a mixed Munsee and Seneca series, or an historic Seneca group that occupied the earlier Owasco site. In connection with the Walam Olum the cranial series from this site is of importance not only because it may constitute a Munsee

⁹Hrdlička, Aleš, *Physical Anthropology of the Lenape or Delawares, and of the Eastern Indians in General* (U. S. Bureau of American Ethnology, Bulletin 62, Washington, D. C., 1916).

series, but also, if it should vary in the Lenapid direction, it would furnish a link to Central Algonkin groups and hence could serve as evidence for a late Lenapid migration eastward.

The Lenapid variety, as delimited by Neumann,¹⁰ entered the archaeological scene of the Middle West relatively late, the earliest cranial series that might be attributed to them consisting of the Jersey Bluffs Focus people, one of the Maples Mills Focus of central Illinois, one from Old Kaskaskia village, one from southwestern Indiana, three from the northern foci of the Fort Ancient Aspect, one from northwestern Pennsylvania, and one from the Oakwood Cemetery mound which may be Miami. The chief affiliations of this variety are certainly with the Algonquian-speaking tribes that lived in Wisconsin, Minnesota, and western Ontario in proto-historic times, and it is a matter of record that some of these tribes formed part of the southward migration as late as the middle of the eighteenth century. It had been the author's original intention to use Hrdlička's Munsee series as a type series for the Lenapid variety, but refrained from doing so because of the size of the sample, lack of historic documentation, and the dangers of using a series from the eastern seaboard as a type series for the Central Algonkin tribes. Instead, the Maples Mills Focus series,¹¹ representing a Late Woodland group from central Illinois was used. This population may have experienced a slight amount of Middle Mississippi Walcolid admixture, but as a whole appears fairly distinctive.

Recently, attention has also been directed to a possible close relationship between the Central Algonkin Lenapids and the Seneca of western New York.¹² Three Seneca cranial series, to be described by Ritchie and the writer in a forthcoming monograph, seem to exhibit a strong Lenapid element among them. They are the collections from the Markham Cemetery dated tentatively by Ritchie as at 1400; the Adams site, dated as between 1550 and 1575; and the Dutch Hollow site, dated as between 1575 and 1625. All Markham site crania are Lenapid, and half of those from the Adams and Dutch Hollow sites also. With the possibility in mind

¹⁰Neumann, "Archeology and Race in the American Indian," in *Archeology of Eastern United States*, pp. 23-25. ¹¹Neuman, Georg K., "The Crania from the Hagan Mound and Their Relationship to Those of Two Late-Prehistoric Populations of Central Illinois," in *Transactions of the American Philosophical Society*, XXXII, pt. 1 (1941), 79-82.

¹²Neumann, "Archeology and Race in the American Indian," in *Archeology of Eastern United States*, p. 25.

TABLE III
MEAN MEASUREMENTS OF A MALE MUNSEE AND A LENAPID
SENECA SERIES

MEASUREMENTS	MUNSEE LENAPE (10)	LENAPID SENECA (20)
CRANIAL VAULT		
Cranial module	154.7	148.6
Mean thickness of left parietal	4.8	4.6
Glabello-occipital length	191.4	185.4
Maximum breadth	139.4	136.7
Minimum frontal breadth	93.3	94.3
Basion-bregma height	139.6	142.3
Basion-porion height	28.0	26.4
Length of cranial base	103.4	108.4
FACE		
Total facial height	121.3	125.6
Upper facial height	71.9	76.3
Total facial breadth	138.9	137.3
Midfacial breadth	99.1	99.9
Interior biorbital breadth	99.1	99.0
Subtense to interior biorbital arc	19.6	20.4
Biorbital breadth	99.4	99.2
Anterior interorbital breadth	19.6	20.3
NASAL STRUCTURE		
Nasal breadth	26.0	26.9
Nasal height	51.9	54.3
Dacryal cord	20.9	20.6
Dacryal subtense to arc	10.7	11.2
Minimum nasal breadth	9.0	9.0
Subtense to nasal arc	4.6	4.4
ORBIT		
Left orbital height	33.7	33.9
Left orbital breadth (mf)	43.1	42.9
Left orbital breadth (d)	40.4	40.6
DENTAL ARCH AND PROFILE		
Maxillo-alveolar breadth	66.9	67.4
Maxillo-alveolar length	55.1	57.9
Facial length (prosthion)	99.1	104.4
Facial length (alveolar point)	97.7	102.9
ANGLES		
Gonial angle	119.9	121.4
MANDIBLE		
Length of mandible	106.3	117.1
Bicondylar breadth	124.1	124.1
Sympathial height	37.2	37.7
Biangular breadth	103.2	102.5
Minimum ramus length	35.0	35.9

TABLE IV

MEAN INDICES OF A MALE MUNSEE AND A LENAPID SENECA SERIES

INDICES	MUNSEE LENAPE (10)	LENAPID SENECA (20)
CRANIAL VAULT		
Cranial	74.89	73.75
Length-height	75.02	76.68
Breadth-height	100.30	104.11
Mean height	85.88	88.31
Flatness of cranial base	17.87	18.61
Transverse fronto parietal	66.28	69.64
FACE		
Total facial	87.39	91.17
Upper facial	51.51	55.52
Midfacial	72.55	76.58
Transverse crano-facial	99.89	100.57
Zygo-frontal	67.30	71.02
Fronto-mandibular	110.75	106.51
Zygo-mandibular	75.78	75.27
Facial flatness	19.74	20.60
Anterior interorbital	19.68	20.39
NASAL STRUCTURE		
Nasal	50.10	49.67
Nasal root height	51.66	55.08
Nasal bone height	52.37	53.14
ORBIT		
Left orbital (mf)	78.23	78.99
Left orbital (d)	83.48	85.04
DENTAL ARCH		
Maxillo-alveolar	121.40	115.69
MANDIBLE		
Mandibular	84.91	89.01

that the putative Munsees may have been part of a late Lenapid movement to the East, and distinctive from the Lenape of the Unalachtigo division represented by the Townsend site crania, the Bell-Philhower (Montague) series was re-examined and compared to a pooled Lenapid Seneca series. Even though both series are small ones, they are thought to be representative of larger populations.

An examination of Tables III and IV makes it clear that, although there exist basic similarities, there are enough significant differences to make one hesitate to combine the two series. These differences are greater than those between different

Seneca series and substantiate the observation that one third or more of the Munsee series can be classified as Otamid.

The next step in the identification consists of making a comparison of the putative Munsee series with the Otamid series given in Tables I and II. Comparing the series, measurement for measurement and index for index, it is evident that the Munsee series corresponds fairly closely to and may therefore for all practical purposes be considered part of the eastern Otamid population exemplified by the three other series. However, considering the smallness of the Munsee sample, one is not able to state at this stage of the work whether the resemblance is closer to any one of these series than to another.

Despite the obvious limitations of lack of historic documentation of the sites, the possibility of hybridization of populations, the relatively brief time span involved, the relatively minor differences between the Otamid and Lenapid varieties at the eastern end of the range of the former, and the smallness of the samples, the author believes that this study substantiates the archaeological finding that we are dealing with a culturally homogeneous single ethnic group, and that this entity may be linked with the historical Munsee, Unami, and Unalachtigo divisions. The identification of the three divisions as belonging to the Otamid variety definitely links the Lenape with the Middle Woodland tribes who were the bearers of the Hopewell culture of the Ohio Valley, and practically rules out the association of the Lenape with a late Central Algonkin movement that brought a number of historic tribes from the Lake Superior region to Illinois, Indiana, and Ohio. In turn, the archaeological and physical agreement validates a number of statements of the Walam Olum that trace the Lenape back at least to the Mississippi, and perhaps from there north to Bering Strait.

BIBLIOGRAPHY

Clauser, Charles E., "The Relationship Between a Coastal Algonkin and a Karankawa Cranial Series," in *Proceedings of the Indiana Academy of Science*, 1947, LVII (1948), 18-23.

Hrdlička, Aleš, *Physical Anthropology of the Lenape or Delawares, and of the Eastern Indians in General* (U.S. Bureau of American Ethnology, *Bulletin 62*, Washington, D. C., 1942).

—, "Crania of Siberia," in *American Journal of Physical Anthropology*, XIX (Washington, D. C., 1942), 435-81.

Neumann, Georg K., "American Indian Crania with Low Vaults," in *Human Biology*, XIV (Baltimore, 1942), 178-91.

—, "Archeology and Race in the American Indian," in *Archeology of Eastern United States*,

edited by James B. Griffin (University of Chicago Press, 1952), pp. 13-34.

—, "The Crania from the Hagan Mound and Their Relationship to Those of Two Late-Prehistoric Populations of Central Illinois," in *Transactions of the American Philosophical Society*, XXXII, pt. 1 (1941), pp. 79-82.

—, "Crania from the Porter Mound, Ross County, Ohio," in *Papers of the Michigan Academy of Science, Arts, and Letters*, XXVI (1941), 479-88.

—, "The Hopewell Culture in the Lower Wabash Valley," in *Journal of the Illinois State Archaeological Society*, N.S. I (1951), 113-18.

—, and Fowler, Melvin L, *Hopewellian Sites in the Lower Wabash Valley* (Illinois State Museum, *Scientific Papers*, V, no. 5, Springfield, 1951), pp. 175-248.

—, and Adis-Castro, Elias, "The Incidence of Ear Exostoses in the Hopewell People of the Illinois Valley," in *Proceedings of the Indiana Academy of Science*, 1947, LVII (1948), 33-36.

—, "Preliminary Notes on the Crania from Fulton County, Illinois," in *Rediscovering Illinois*, by Fay-Cooper Cole and Thorne Deuel (University of Chicago Press, 1937), pp. 227-64 and Plate XXXVI.

—, "Types of Artificial Cranial Deformation in the Eastern United States," in *American Antiquity*, VII (1942), 306-10.

Tolstoy, Paul, "Some American Pottery Traits in North American Prehistory," in *American Antiquity*, XIX (1952), 26-39.

ADDITIONAL WALAM OLUM REFERENCES

COMPILED BY PAUL WEER

Below are listed selected items pertaining to the Walam Olum and studies of it, not included in any of the bibliographies accompanying various parts of this volume.

I. ANTHROPOLOGICAL STUDIES

Beatty, Charles, *The Journal of a Two Months Tour; with a View to Promoting Religion among the Frontier Inhabitants of Pennsylvania . . .* (Edinburgh, 1798). Pp. 12-13, footnote: Parts of the Delaware migration story, as embodied in the Walam Olum, heard in the Delaware towns in Ohio (1766), as reported to Beatty by Benjamin Sutton. P. 46: Fragment of the story from another source.

Brinton, Daniel Garrison, *Aboriginal American Authors and Their Productions: Especially Those in the Native Languages. A Chapter in the History of Literature* (Philadelphia, 1883). See pp. 20-21.

Calkins, Hiram, "Indian Nomenclature of Northern Wisconsin, with a Sketch of the Manners and Customs of the Chippewa," in *Wisconsin Historical Collections*, I (Madison, 1854), 119-26. P. 125: "Songs that he recites from two small boards on which they are written in hieroglyphics."

Carr, Lucien, "The Mounds of the Mississippi Valley Historically Considered," in General Appendix to Smithsonian Institution, *Annual Report*, 1890-91 (Washington, D.C., 1893), pp. 503-99. P. 587: Cites Walam Olum as traditional record.

De Roo, Peter, *History of America before Columbus* (2 volumes. Philadelphia, 1900). See volume I, 109-16, 190, 585-91.

Dodge, J. R., *Red Men of the Ohio Valley* (Springfield, Ohio, 1860). P. 22: Brief retelling of the Lenape migration story, but without citing the Walam Olum.

Dunn, Jacob Piatt, "The Walam Olum of the Delawares," in *Indianapolis News*, January 18, 1908.

_____, *True Indian Stories . . .* (Indianapolis, 1908). See pp. 181-96.

Fenton, William N., *The Roll Call of the Iroquois Chiefs. A Study of a Mnemonic Cane from the Six Nations Reserve* (*Smithsonian Miscellaneous Collections*, CXI, no. 15, Washington, D.C., 1950). Important contribution to knowledge of mnemonic records.

Godfrey, Carlos E., *The Lenape Indians: Their Origin and Migrations to the Delaware . . .* (The Trenton Historical Society, Trenton, N.J., 1919). An address delivered before the Trenton Historical Society, November 20, 1919.

Hale, Horatio, "Indian Migrations as Evidenced by Language," in *American Antiquarian and Oriental Journal*, V, no. 2 (April, 1883), pp. 108-24. See pp. 116-21.

_____, Review of Daniel G. Brinton's *Aboriginal American Authors*, in *The Pennsylvania Magazine of History and Biography*, VIII (1884), 230. ". . . the Walam Olum, the traditional history of the Lenni Lenape . . . composed in their idiom, and preserved in memory by means of mnemonic symbols. It was reduced to writing, in the missionary alphabet, early in the present century. . . . The original manuscript was supposed to be lost. It is gratifying to know that this important work, which throws a vivid light on the early history of

the American tribe for a period long anterior to Columbus—going back indeed, in an authentic manner, to a date preceding the overthrow of the Allegiwi or Moundbuilders—has lately been recovered by Dr. Brinton. . . .”

Kinietz, Vernon, “Birch Bark Records Among the Chippewa,” in *Proceedings of the Indiana Academy of Science*, 1939, **XLIX** (Fort Wayne, Ind., 1940), 38–40.

Lawson, John, *The History of Carolina* (London, 1714). Reprinted Raleigh, Strother and Marcom, 1860. P. 295 (reprint): Important early reference to method of keeping and reciting mnemonic records.

Lilly, Eli, “Remarks Regarding the Pictographs of the Walum Olum,” in *Proceedings of the Indiana Academy of Science*, 1939, **XLIX** (Fort Wayne [1940]), 32–33.

McGee, W J, “The Siouan Indians: a Preliminary Sketch,” in U. S. Bureau of American Ethnology, *Annual Report*, 1893–94 (Washington, D.C., 1897), pp. 153–204. See p. 190.

— and Thomas, Cyrus, *Prehistoric North America (The History of North America*, volume **XIX**, edited by Francis Newton Thorpe, Philadelphia, 1905). P. 408: “One writer has even asserted that it (The Walam Olum) may well-nigh be considered history.” P. 415: “Such is the tradition of the Delawares, and though but a tradition, it is one Indian legend which, perhaps, may be considered history. It is on this account, and because of the light it throws on the process of adjustment and establishment of geographical relations, that we have devoted so much space to its consideration.”

Massachusetts Historical Society *Collections*, 1 series, **IX** (Boston, 1804), pp. 99–102, “Extract from an Indian History.” P. 100: The Mohican (one of the Lenape “grandchildren” tribes) version of the Lenape migration story. No reference to the Walam Olum. This same story, probably from this source, is told in Ruttenber, E. M., *History of the Indian Tribes of Hudson's River* (Albany, 1872), pp. 45–47. The same story was being told by the Stockbridge Indians (a mixture of Mohican, Delaware, Munsee, and other tribes) in Wisconsin in 1845. “Documents Relating to the Stockbridge Mission, 1825–1848,” edited by Rueben Gold Thwaites and William Ward Wright, in *Wisconsin Historical Collections*, **XV** (Madison, 1900), 191.

Mooney, James, “Calendar History of the Kiowa Indians,” in U. S. Bureau of American Ethnology, *Annual Report*, 1895–96 (Washington, D.C., 1898), pp. 129–45. P. 142: “East of the Mississippi the most important and best known record is the Walam Olum. . . . It appears to be genuine and ancient, although the written chant as we find it contains modern forms. . . . It is said that the Cherokee seventy years ago had a similar long tribal tradition which was recited by the priest on ceremonial occasions. If so, it was probably recorded in pictographs, but tradition and record alike are now lost.”

—, “Myths of the Cherokee,” in U. S. Bureau of American Ethnology, *Annual Report*, 1897–98 (Washington, D.C., 1900), pp. 3–548. See pp. 18–20, 184–85, 190–91, 229.

—, “Walam Olum,” in *Handbook of the American Indians North of Mexico*, edited by Frederick Webb Hodge (2 parts. U. S. Bureau of American Ethnology, *Bulletin* 30, Washington, D. C., 1907, 1910), pt. 2, pp. 898–99.

Schoolcraft, Henry Rowe, Washington, D.C., to Ephraim George Squier, February 16, 1849. 7 pp. Original letter in New York Public Library. Relates to Squier's paper, “Historical and Mythological Traditions of the Algonquians. . . .”

Skinner, Alanson, *Notes on Mahican Ethnology (Bulletin of the Public Museum . . . of Milwaukee*, II, no. 3, January 20, 1925). Especially important is the reported meeting (p. 101) between the Rev. John Sargeant and Capt. Hendrick, a Mahican chief, on White River, in Indiana, and the transmittal of Hendrick's “traditional history” through Sargeant to Jedidiah Morse, in the year 1822.

—, and Schrabisch, Max, *A Preliminary Report of the Archaeological Survey of the State of New Jersey* (Geological Survey of New Jersey, *Bulletin* 9, Trenton, 1913). See pp. 17–19.

Speck, Frank G., *The Celestial Bear Comes down to Earth* (Reading, Pa., Museum and Art Gallery, *Scientific Publication Series*, no. 7, Lancaster, Pa., 1945), pp. 22, 24–25, 90–91. On pp. 90–91 Chief Joseph Montour affirms the authenticity of the Walam Olum.

Swanton, John R., *The Indians of the Southeastern United States* (U. S. Bureau of American Ethnology, *Bulletin 137*, Washington, D.C., 1946. Pp. 733-34, pictorial reference.

Thomas, Cyrus, "Prehistoric Migrations in the Atlantic Slope of North America," in *American Antiquarian and Oriental Journal*, XVIII (1896), see pp. 348, 358; XIX (1897), see pp. 73-81, 212-13.

—, *see also* McGee, W. J.

Voegelin, C. F., "Delaware, an Eastern Algonquian Language," in Harry Hoijer, *et al.*, *Linguistic Structures of Native America* (*Viking Fund Publications in Anthropology*, No. 6, New York, 1946), pp. 130-57.

—, "Delaware Texts," in *International Journal of American Linguistics*, XI (Baltimore, 1945), 105-19.

—, "The Lenape and Munsee Dialects of Delaware, An Algonquian Language," in *Proceedings of the Indiana Academy of Science*, 1939, XLIX (Fort Wayne [1940]), pp. 34-37.

—, "Position of Blackfoot among the Algonquian Languages," in *Papers of the Michigan Academy of Science, Arts and Letters*, XXVI (Ann Arbor, 1941), 505-12.

—, "Proto-Algonquian Consonant Clusters in Delaware," in *Language*, XVII (Baltimore, 1941), 143-47.

—, "Word Distortion in Delaware Big House and Walam Olum Songs," in *Proceedings of the Indiana Academy of Science*, 1941, LI (Indianapolis, 1942), pp. 48-54.

Voegelin, Erminie W., "Culture Parallels to the Delaware Walam Olum," in *Proceedings of the Indiana Academy of Science*, 1939, XLIX (Fort Wayne [1940]), 28-31.

Wallace, Anthony F. C., and Reyburn, William D., "Crossing the Ice: A Migration Legend of the Tuscarora Indians," in *International Journal of American Linguistics*, XVII, no. 1 (January, 1951), 42-47.

Wardle, Helen Newell, "Stone Ceremonials in Relation to Algonkin Symbolism," in *Proceedings of the Academy of Natural Sciences of Philadelphia*, 1923, LXXV (Philadelphia, 1924), 379-91, and plates XXVI and XXVII.

Weer, Paul, "Brantz Mayer and the Walam Olum Manuscript," in *Proceedings of the Indiana Academy of Science*, 1944, LIV (n.p. [1945]), 44-48.

—, "Passamaquoddy and Quapaw Mnemonic Records," in *Proceedings of the Indiana Academy of Science*, 1945, LV (n. p. [1946]), 29-32.

—, "Provenience of the Walam Olum," in *Proceedings of the Indiana Academy of Science*, 1941, LI (Indianapolis, 1942), 55-59.

—, "Rafinesque's Doctor Ward," in *Society of Indiana Pioneers Year-Book*, 1945 [Indianapolis, 1945], pp. 19-25.

—, "Thomas Dean and the Delaware Towns," in *Proceedings of the Indiana Academy of Science*, 1946, LVI (n. p. [1947]), 26-32.

—, "The Walam Olum as Source Material" (MS, 1949).

—, "The Walam Olum, Indiana's Debt to Rafinesque," in *The Indiana Quarterly for Bookmen*, I, no. 4 (October, 1945), 107-12.

Zimmerman, Mark E., "The Pawnee Americans," in *Kansas State Historical Society, Collections*, XVI, 1923-25 (Topeka, 1925), 463-75. See pp. 467, 470-71.

II. MISCELLANEOUS REFERENCES

Allen, Harrison, "An Analysis of the Life-Form in Art," in *Transactions of the American Philosophical Society* . . . , N. S. XV (1881), 261-349. Pp. 326, 336-37, 341: Walam Olum pictographs after Squier.

The Archaeologist, I, no. 9 (Waterloo, Ind., September, 1893), p. 170: Reference to a paper read

at a meeting of the American Association for the Advancement of Science, Madison, Wis., August 16-23, 1893, by C. S. Wake, on "Indian Migrations." "Mr. Wake's paper treated of the migrations of the American tribes something over two hundred years ago. He referred at length to Dr. Brinton's translation of the Lens-Lenape legions, and gave it as his conviction that the tribe of the

Snake people built the mounds of the Ohio Valley. He discussed the Tellega and placed them somewhat later than the Snake tribe."

The Archaeologist, II, no. 8 (Waterloo, Ind., August, 1894). P. 251: Reference to the Walam Olum and the "Snake People—probably the last of the Mound Builders," in review of Gerard Fowke's *Notes on Ohio Archaeology*. (The compiler has not had access to a copy of Fowke's book for examination.)

Bastian, Adolf, *Ethnologisches Bilderbuch mit erklärendem Text* (Berlin, E. S. Mittler & Sohn, 1887), Tafel XXIII, Schöpfungssage der Lenape nach der Walam Olum [after Brinton].

Beckner, Lucien, "Kentucky before Boone. The Siouan People," in *Register of the Kentucky State Historical Society*, XLVI, no. 154 (January, 1948). pp. 384-96. See pp. 385-86.

Blanck, Jacob, "The Walam Olum and John Russell Ward," in *Antiquarian Bookman*, VIII, no. 19 (November 10, 1951), p. 1287.

Berlin, Alfred Franklin, "The Lenni Lenape or Delaware Indians," volume I, chapter 3, pp. 18-40, in *History of Lehigh County, Pennsylvania . . .*, by Charles Rhoads Roberts, et al. (3 volumes, Allentown, Pa., 1914). See p. 26.

Bolton, Reginald Pelham, *Indian Life of Long Ago in the City of New York* (New York, 1934). Pp. 1-8: An anthropological reference and an excellent historical statement, but without documentation.

Brinton, Daniel G., "Lenape Conversations," in *The Journal of American Folk-Lore*, I (1888), 37-43. Notes on conversation with the Rev. Albert Seqaqknind Anthony on Lenape language.

Carpenter, Edmund S., "Archaeology's Enchanted Hour: The Role of Archaeology in the Nineteenth Century Controversy between Developmentalism and Degeneration," in *Pennsylvania Archaeologist*, XX, nos. 1 and 2 (Jan.-June, 1950), pp. 1-20. See p. 5.

Connelley, William Elsey, and Coulter, E. Merton, *History of Kentucky*, edited by Judge Charles Kerr (5 volumes. American Historical Society, 1922). Volume I, 22: A popular account of the transfer of the Walam Olum from the Lenape through Dr. Ward to Rafinesque, but without documentary evidence.

Donehoo, George P., "The Indians of the Past and Present," in *The Pennsylvania Magazine of History and Biography*, XLVI (1922), 177-98.

Dunn, Jacob Piatt, *Indiana and Indianans* (5 volumes. American Historical Society, Chicago and New York, 1919). See Volume II, 1090.

Dupre, Huntley, *Rafinesque in Lexington, 1819-1826* (Lexington, 1945).

Galloway, William Albert, *Old Chillicothe, Shawnee and Pioneer History* (Xenia, Ohio, 1934). See pp. 151-52 and plate opposite p. 150.

Hunt, George T., *The Wars of the Iroquois; a Study in Intertribal Trade Relations* (University of Wisconsin Press, 1940). See pp. 15n, 19.

Lafferty, Mrs. Maude Ward, "Life and Times of Andrew Harrison Ward" (Processed copy in University of Kentucky Library, Lexington, Ky., 1945). See p. 51 for undocumented account of transfer of Walam Olum from Rafinesque to Ward.

Leitner, Leander, *The Walam Olum: A Legend of the Lenape Indians* (Skyline Press, Brooklyn, N.Y., 1941 [?]).

Mercer, Henry C., "The Grave of Tamenend (Tammany)," in *Magazine of American History*, XXIX, no. 3 (March, 1893), 255-61. Reprinted in *Bucks County Historical Society Papers*, II (1909), 58-66. Pp. 260-61: Date for death of the last (the third) Tamenend given as 1718 (?) or about 1750 (?).

_____, "The Red Man's Bucks County," in *Bucks County Historical Society Papers*, II (1909), 267-83. P. 277: "The painted stick chronicle of the Delaware, preserved by them for centuries and rescued from destruction by Rafinesque and Dr. Brinton gives about the same date as does a native tradition of the same kind collected by Heckewelder, all of which means that the Lenape only came here (Pennsylvania) when Richard II was ruling in England . . ." (1377-1400).

_____, *Researches upon the Antiquity of Man in the Delaware Valley and the Eastern United States (Publications of the University of Pennsylvania Series in Philology, Literature, and Archaeology*, VI, 1897). See pp. 70-85.

Philhower, Charles A., "The Aboriginal Inhabitants of Monmouth County," in *Proceedings of the*

New Jersey Historical Society, N.S. IX, no. 1 (January, 1924), 22-40. See p. 25.

_____, "The Indians of the Morris County Area," in *Proceedings of the New Jersey Historical Society*, LIV, no. 4 (October, 1936), pp. 249-67.

_____, "Some Personal Characteristics of the Lenape Indians," in *Proceedings of the New Jersey Historical Society*, N.S. XVI, no. 1 (April, 1931), pp. 136-61. See p. 140.

_____, "South Jersey Indians on the Bay, the Cape and the Coast," in *Proceedings of the New Jersey Historical Society*, N.S. XVI, no. 1 (January, 1931), pp. 1-21. See p. 5.

Russell, Frank, "The Pima Indians," in U. S. Bureau of American Ethnology, *Annual Report*, 1904-5 (Washington, D.C., 1908), pp. 3-389. Pp. 34-35: Reference to Walam Olum as one of three "chronological records [that] have thus far been preserved from among the many that are supposed to have existed among the American tribes." The others are found in "Pictographs of the North American Indians," in *ibid.*, 1882-83 (1886), pp. 3-256, and in "Picture-Writing of the American Indians," in *ibid.*, 1888-89 (1894), pp. 1-822, in which Garrick Mallory gives a Dakota calendar; and in "Calendar History of the Kiowa," by James Mooney, in *ibid.*, 1895-96 (1898), pp. 129-445.

Schmidt, Wilhelm, *High Gods in North America. Upton Lectures in Religion*, Manchester College, Oxford, 1932 (Oxford, The Clarendon Press, 1933). See pp. 74-75.

Speck, Frank G., *Montagnais Art in Birch Bark, a Circumpolar Trait* (Indian Notes and Monographs, Museum of the American Indian, Heye Foundation, XI, no. 2, New York, 1937). See p. 47.

Swanton, John R., "Social Organization and Social Usages of the Indians of the Creek Confederacy," in U. S. Bureau of American Ethnology, *Annual Report*, 1924-25 (Washington, D. C., 1928), pp. 31-472. See p. 34: Pictorial reference.

Wilson, Samuel M., "Shawnee Warriors at the Blue Licks," in *Register of the Kentucky State Historical Society*, XXXII (1934), pp. 160-68. See pp. 164-65.

Zimmerman, Mark E., "The Ground-House Indians and Stone-Cist Grave Builders of Kansas and Nebraska," in Kansas State Historical Society, *Collections*, XIV (Topeka, 1908), 471-87. See pp. 484, 486, 487.

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